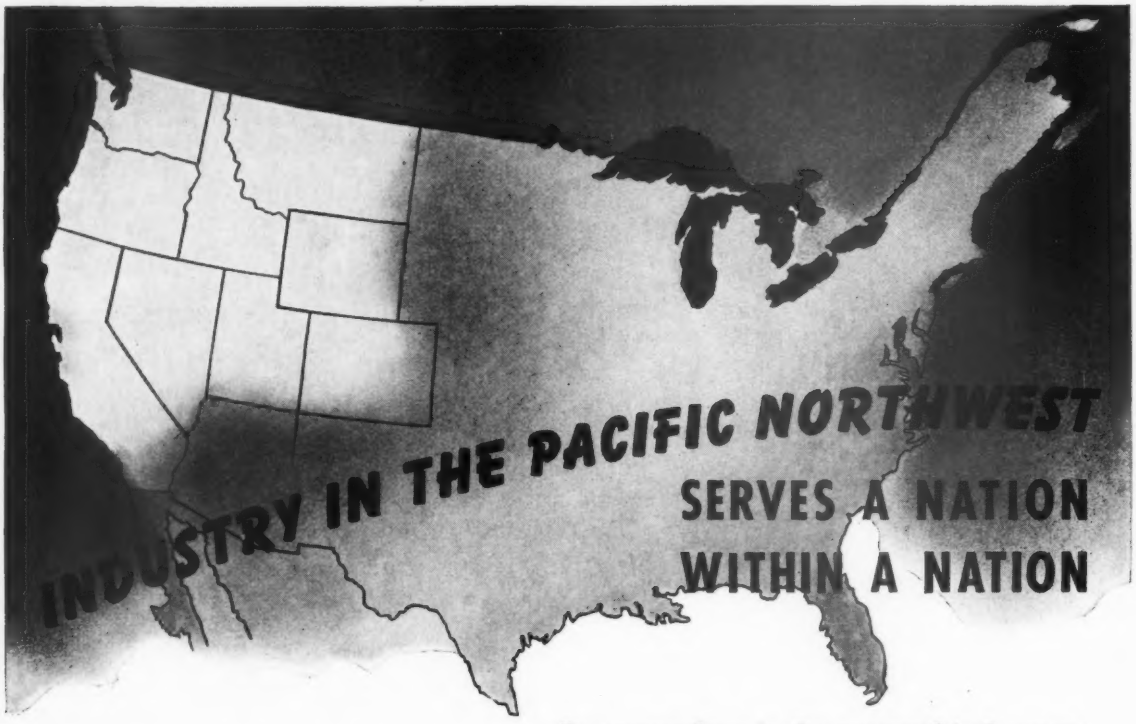
A large number of men from all sections of the country took an active part in the technical program and dinner-meeting discussions at the 1940 FALL MEETING of TAPPI in Seattle, August 20-23rd, 1940.

PACIFIC Pulp & Paper INDUSTRY

Vol. 14 • No. 9 SEPTEMBER 1940



So tremendous is the geographical extent of the Pacific Northwest that this great area has the ability to be virtually as self-sufficient as many a large nation. Farms, orchards, timber, and a variety of natural resources in abundance, have made it possible for industries to develop here which are able to produce and distribute nearly every type of product in general use.

Built to serve Western industry is the large plant of the Pennsylvania Salt Mfg. Co., located in Tacoma, Washington. Its numerous chemical products are widely used in such a variety of fields as the pulp and paper industry, soap manufacturing, sugar refining, petroleum refining, commercial laundries, municipal water filtering and sewage disposal plants, farms, dairies, orchards, and many others.

Among the leading products of this Company is dependably pure liquid chlorine, backed by a service that insures customers safe and workable equipment. Those who know industry in the Pacific Northwest recognize the important part which Pennsylvania Salt Mfg. Co. has played in its development.

Among the products of this Company used by Western industry are:

- CAUSTIC SODA
- CHLORINE
- CRYOLITE
- CALCIUM HYPOCHLORITE
- KRYOCIDE
- PENCHLOR ACID-PROOF CEMENTS
- ASPLIT CEMENT
- PENNPAINT
- AMMONIA

PENNSYLVANIA SALT MANUFACTURING CO. OF WASHINGTON

Chemicals

TACOMA, WASHINGTON

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Scott Paper Company Buys Second Coast Pulp Mill

President Thomas B. McCabe announces purchase of the Anacortes, Washington, unbleached sulphite pulp mill of the Puget Sound Pulp & Timber Co. effective November 15th.

● Announcement by the Scott Paper Company of Chester, Pennsylvania, of the consummation of a contract to purchase the unbleached sulphite pulp mill at Anacortes, Washington, on November 15th, was made by Thomas B. McCabe, president of the Company which manufactures the world-famous Scott products.

"The purchase was made pursuant to a program established by the Scott Paper Company of maintaining a source of raw material on the West Coast," Mr. McCabe said. He added that this is the second pulp mill acquired by the Company in the Pacific Northwest this year. Scott purchased the entire outstanding capital stock of the Coos Bay Pulp Corporation, Empire, Oregon, in June.

The Anacortes plant, formerly a unit of Puget Sound Pulp and Paper Company, has an annual capacity of approximately 30,000 tons of unbleached sulphite pulp.

Mr. McCabe further stated that Scott Paper Company has come to look to the West Coast for increasing quantities of pulps which are necessary in the manufacture of Scott Products.

"In addition to using pulp from the two West Coast plants which we own, we also buy large quantities of pulp from other Pacific Coast manufacturers," Mr. McCabe said.

On releasing the Stockholder News to shareholders of the Company, he also stated that net sales of Scott Products for the first eight months of this year amounted to $12,876,322. This represents an increase of 11 per cent over the same period of last year.

Commenting further on the Company's business, he added "Sales of our retail products—Waldorf, ScotTissue and ScotTowels for kitchen use—are well ahead of last year; sales of Scott Industrial Products—"Soft Tuff" ScotTissue Towels, Waldorf Towels and ScotTissue Service Roll—have shown a particularly favorable trend, reflecting increased business activity as well as the product improvements announced earlier this year.

"It is recognized," he said, "that increased Federal taxes are necessary for the vital work of National Defense. However, it is important to point out to our shareholders that corporate income taxes have already been increased and pending legislation provides for substantial excess profits taxes. Such additional tax burdens will of necessity be reflected in your Company's earnings."

The unbleached sulphite pulp mill at Anacortes, Washington, was built in 1925 by Ossian Anderson, now president of the Puget Sound Pulp & Timber Company, and associates, and was known until 1929 as the Fidalgo Pulp Manufacturing Company. In that year it was merged with the San Juan Pulp Manufacturing Company at Bellingham to form the Puget Sound Pulp & Timber Company. It is equipped with two digesters and two drying machines producing shredded pulp.

The Scott Paper Company now has, through ownership of the Coos Bay and the Anacortes mills a total Pacific Coast unbleached sulphite pulp producing capacity of from 55,000 to 60,000 tons annually.

THOMAS B. McCABE, President, Scott Paper Company

EXPANSION of the Puget Sound Pulp & Timber Company's modern unbleached sulphite pulp mill at Bellingham, Washington, will begin immediately and is scheduled for completion by March, 1941 ✓ ✓ ✓ The expansion program will embrace enlargement of the wood breakdown plant, the digester building, the drying machine building and miscellaneous departments ✓ ✓ ✓ The steam plant was recently expanded and has sufficient capacity to meet the requirements of 150,000 tons annual production ✓ ✓ ✓ Present capacity is around 100,000 tons annually.

Puget Sound to Expand Bellingham Mill by 50%

Capacity of unbleached sulphite pulp mill constructed in 1938 will be increased by 50,000 tons annually—Completion scheduled for March, 1941—Financed by bank loan.

● The Puget Sound Pulp & Timber Company will expand the production of its Bellingham mill by 50 per cent or 50,000 tons annually, according to an announcement made August 22nd by Ossian Anderson, president of the company.

The directors approved the plan on August 9th and the stockholders placed their approval on the expansion at a meeting in Bellingham, September 9th, with the common stockholders voting 97 per cent in favor of the expansion.

Work will begin at once on the new units under the direction of Harold D. Cavin, resident engineer at Bellingham. In his letter to stockholders, President Anderson stated that if the plan was approved by mid-September the expansion program could be completed in five months thus giving the company a full ten months operation in 1941 on the basis of 150,000 short tons annual production.

Financing of the new unit will be through a loan of $1,500,000 from the Bank of America National Trust and Savings Association, San Francisco. It is to be repaid in ten installments of from $112,500 to $200,000 each, payable semi-annually starting July 1, 1941, at interest rates of from 3 to 4½ per cent, the interest rate to move upward one-half of one per cent each year until reaching 4½ per cent with the July 1, 1944, installment. Prepayment can be made at any time at a premium of 2 per cent for prepayment in 1941 or 1942 and decreasing one-half of one per cent each year thereafter until reaching one-half of one per cent in 1945. The loan is to be repaid out of net profits of the company.

President Anderson, in his statement to stockholders said that, "the lowered cost of production (due to the production of 150,000 tons instead of 100,000 tons annually) will amortize the cost of the new unit (less depreciation) in five years through a saving in the cost of production, assuming a capacity production of approximately 150,000 tons per year throughout such period."

Basis for Expansion

● The statement to stockholders said that, "The decision to recommend the construction of this additional unit is based on the following factors:

"(a) An excellent market, both foreign and domestic, is now enjoyed by the company, and it is the belief of the management that a strong demand for this particular grade of chemical pulp will continue through 1941 owing to a world shortage which has developed in spite of reduced consumption in some of the warring countries. This world shortage has been brought about in part by lack of any new construction of unbleached sulphite pulp mills in the last two years, by curtailment or elimination of production in Finland, and by increased cost of transportation from the Scandinavian countries, which, together with blockades, has virtually eliminated any substantial shipments from these large producers, forcing shutdowns and drastic reduction in normal world supply and inventories.

"(b) It is the belief of the management that even on an immediate cessation of hostilities and eventual peace treaty, transportation costs from the Scandinavian countries will remain high for at least one year until the demand for shipping tonnage is reduced or new ship construction can replace some three million tons of cargo vessels lost thus far during the hostilities by all nations.

"(c) The above factors will keep freight rates to our markets above pre-war levels and will thus tend to enable American producers to supply the American markets without having to meet such competition as was experienced immediately prior to the Russo-Finnish war.

"(d) In the opinion of the management, a peace in Europe will mean that European countries will require large quantities of pulp, which demand will, for sometime, consume all or a major portion of the productive capacity of the Scandinavian countries, especially in view of the fact that it will take the Scandinavian countries some time to reach capacity operations due to interruptions in woodcutting and disruption of transportation.

"(e) With a reasonably assured market for the new output—in fact, an opportunity to contract for its sale in advance at profitable prices—the management feels that the benefits to be derived in the form of lowered cost of production and quick retirement of the cost of the added unit from its own earnings, will greatly enhance the Company's earning capacity and security."

Financial Statement

● The consolidated balance sheet of the Puget Sound Pulp & Timber Company and its subisidary company, the Pugst Sound & Cascade Railway Company, showed assets of $5,938,898.92 as of March 31, 1940. Consolidated current assets on that date totaled $874,980.19 against consolidated current liabilities of $669,857.15.

Net income for 1937 was $251,-004.90 while a loss of $6,644.08 was sustained in 1938. Net income in 1939 amounted to $93,948.11 and in the first three months of 1940 net income totaled $264,578.39.

Bellingham a Modern Plant

● The unbleached sulphite pulp mill at Bellingham which is to be expanded by 50 per cent, is a modern producing unit constructed in 1937 and 1938. Operations began in June of 1938. The work done at that time involved the modernizing of the original plant and the construction of new chipping plant, acid plant, digester building, drying machine building and a new steam plant. For a complete description of the Bellingham mill of the company see pages 10 to 28 of the July, 1938, issue of PACIFIC PULP & PAPER INDUSTRY.

In addition to the Bellingham mill the Puget Sound Pulp & Timber Company has owned and operated the unbleached sulphite pulp mill at Anacortes with a daily capacity of 70 tons of shredded pulp.

The company announced on September 9th the sale of the Anacortes plant to an unnamed purchaser for $425,000. Pulp production will now be concentrated at Bellingham.

The company owns a large volume of pulpwood timber in the Cascades east of Bellingham and from this timber obtains a varying proportion of its wood requirements, the amount depending upon the condition of the log market.

Officers and directors of the Puget Sound Pulp & Timber Company are: Ossian Anderson, president and director; Robert H. Evans, director and legal counsel; William C. Keyes, director; Ralph H. Miller, director; H. M. Robbins, vice president and director; J. L. Rucker, director; Fred G. Stevenot, director; and, Lawson Turcotte, secretary-treasurer.

Bellingham Honors Company Officials

● The people of Bellingham, Washington, are appreciative of the contribution being made to the welfare of the city through steady employment of a large number of men and the purchase of supplies through local merchants. To show this appreciation in tangible form the Bellingham Chamber of Commerce held a banquet on the evening of September 9th. Honor guests were officers and directors of the company and of the Pulp, Sulphite and Paper Mill Worker's union.

Over 400 people attended, the largest crowd to be present at a Bellingham Chamber of Commerce dinner. Rogan Jones, chairman for the dinner arrangements served as toastmaster and told the Puget Sound officials that the city greatly appreciated the employment its plant provided and that the citizens wished them every success.

Ossian Anderson, president of the company spoke on the plans for expansion of the mill and told the gathering that the company appreciated greatly the cooperation extended by the city government and the citizens of Bellingham. Mr. Anderson told of his recent trip to South America.

At the speakers' table were the officers and directors of the Puget Sound Pulp & Timber Company with their wives. Also at the table were Mr. and Mrs. Bud McDonald and Mr. Paulsen. Mr. McDonald is president of the Bellingham local of the International Brotherhood of Pulp, Sulphite & Paper Mill Workers and Mr. Paulsen is secretary. President of the Bellingham Chamber of Commerce is Henry Jukes, vice president of the Bellingham National Bank.

"Puget Sounders" Make Annual Cruise

Paper mill executives from East, Middle West and from Mexico, Brazil and Argentina visit Pacific Northwest mills on cruise sponsored by the St. Regis Kraft Company, Puget Sound Pulp & Timber Company and the Bulkley, Dunton Pulp Company.

GROWTH of the wood pulp industry on Puget Sound in the past decade and broader use of the pulp from this region by paper mills in the Eastern part of the United States, Mexico and South America has brought about a keen desire on the part of paper mill men to become acquainted with the resources of the Pacific Northwest. For several years Ossian Anderson, president of Puget Sound Pulp & Timber Company and executive vice-president of the St. Regis Kraft Company, has been host to groups of executives from time to time. Last year he invited a number of these men to come out to Puget Sound to join with some of the officials of his companies on a cruise aboard the yacht "Cadrew." This proved so pleasurable to the visitors and so effective a means of acquainting them with the industry that an informal group known as the "PUGET SOUNDERS" evolved from it which planned to make the cruise an annual affair.

This year, nineteen men prominent in the pulp and paper industry, shipping and banking came to Puget Sound from eastern United States, Mexico and South America to join

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Cruise of the "Puget Sounders"

On the opposite page are reproduced some of the snapshots taken during the cruise of the "Moonlight Maid" on Puget Sound, August 11-17th.

No. 1, The "Moonlight Maid" at the dock of the St. Regis Kraft Co., Tacoma; No. 2, WALTER DeLONG, Manager, Puget Sound Pulp & Timber Co., Bellingham, talking things over with R. MIKE BUCKLEY, St. Regis Kraft Co., Tacoma (on the right).

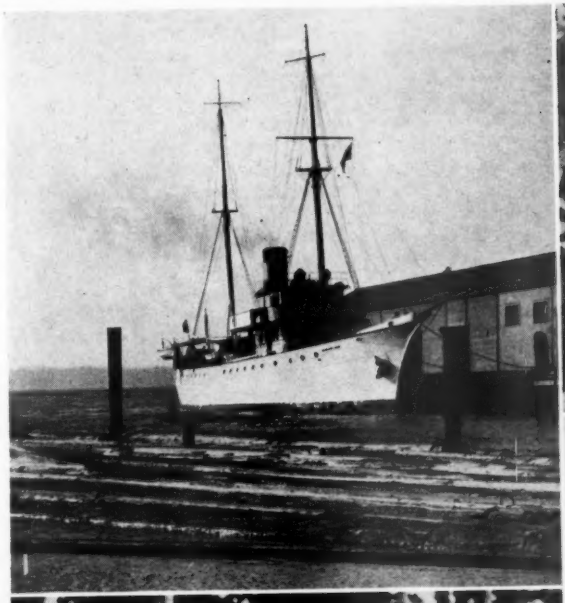
E. R. GAY, Vice President, St. Regis Paper Co., New York, is smiling in No. 3; EVERETT GRIGGS II, President of the St. Paul & Tacoma Lumber Co., Tacoma; DWIGHT G. W. HOLLISTER, President, A. P. W. Paper Co., Albany, N. Y. (in the center), and W. H. VERSFELT, Treasurer, St. Regis Paper Co., New York, in picture No. 4.

In No. 5 appears the "Southern Cross," the yacht of AXEL L. WENNER-GREN, in the harbor at Vancouver, B. C. Mr. Wenner-gren entertained the group at luncheon aboard his yacht on August 11th.

No. 6, OSSIAN ANDERSON, with back to camera, President, Puget Sound Pulp & Timber Co., and Executive Vice President, St. Regis Kraft Co., shows JOE BULKLEY, President, Bulkley Dunton Pulp Co., N. Y., how the big trees are cut.

No. 7, pictures one of the "Southern Cross" launches taking guests to the yacht for luncheon August 11th. No. 8, Among the big trees at Lake Crescent, left to right, ROBERT GRANT, Lyddon & Co., Ltd., London, England, pulp brokers; S. KLABIN, Klabin Irmaos y Cia., Sao Paulo, Brazil; and JOSE de la MACORRA, General Manager, Cia. de las Fabricas de Papel de San Rafael y Anexas, S. A., Mexico, D. F.

No. 9, PETER J. MASSEY, Vice President Combined Locks Paper Co., Combined Locks, Wisconsin; and W. IRVING OSBORNE, JR., President, Cornell Wood Products Co., Chicago, Illinois.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the "PUGET SOUNDERS" 1940 cruise and from August 11th to August 18th lived aboard the steam yacht "Monlight Maid." They visited Vancouver and Victoria, B. C.; Port Angeles, Port Townsend, Bellingham, Everett, Seattle and Tacoma, Washington. At each port pulp and paper mills were opened to them and numerous automobile tours of the forest areas gave them a chance to see at first hand the basic resources that support this industry. Through the courtesy of Everett Griggs II, president of the St. Paul & Tacoma Lumber Company, the party was shown its modern logging operation in full swing.

Fifteen of the party came together from Chicago over the Great Northern Railway in a private car, arriving in Vancouver, B. C., Sunday morning, August 11th, and were joined on board the "Moonlight Maid" by others who came from other points.

The entire group was invited to luncheon on the SS "Southern Cross" as guests of Mr. Axel Wenner-Gren, which made a most auspicious and happy first event of a very eventful cruise for everyone. Mr. and Mrs. Wenner-Gren were in British Columbia waters at the time on a long cruise from their home in the Bahamas. While in the province they were accorded many honors for their rescue of more than 300 people from the torpedoed steamer "Athenia" in the Atlantic soon after the start of the European war.

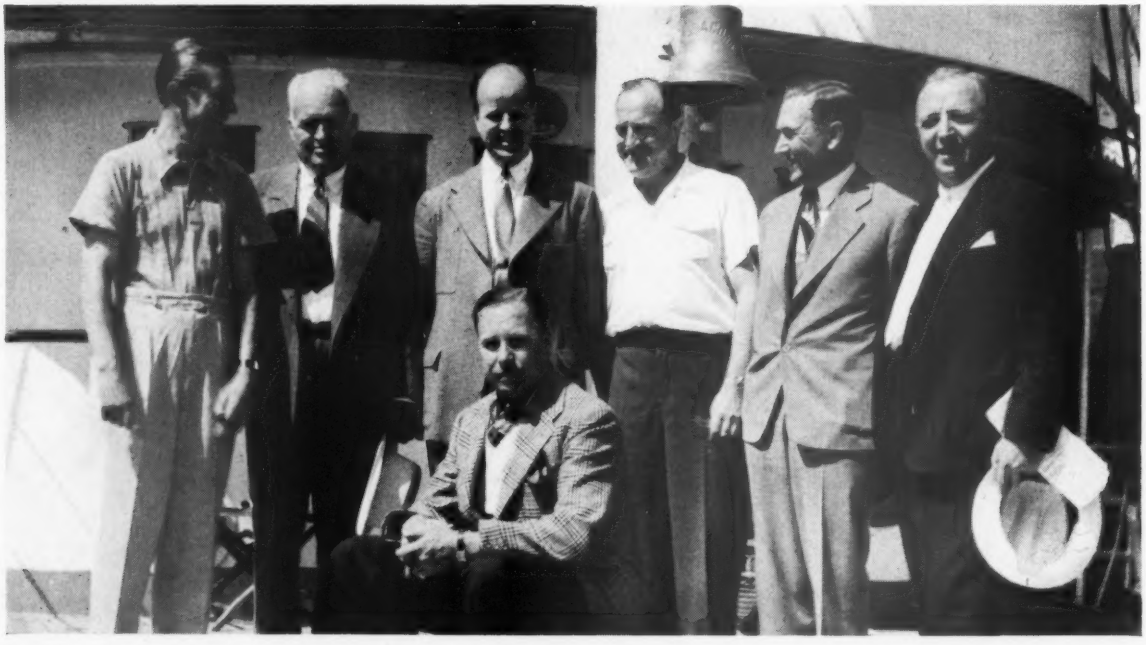
Monday morning, August 12th, the party arrived in Victoria and enjoyed golf at Oak Bay and a brief tour of the city. Then the party crossed the Straits of Juan de Fuca to Port Angeles where the mills of Fibreboard Products, Inc., and Washington Pulp and Paper Corporation, Division of Crown Zellerbach Corporation were visited. Tuesday morning cars carried the group through the timber on the Olympic Peninsula and to Lake Crescent, where a stop was made to admire the large trees and scenery. Many in the party viewed the giant spruce and firs for the first time. The afternoon was devoted to salmon fishing off Dungeness and the journey to Port Townsend where C. W. Erickson, resident manager of the National Paper Products, Division of Crown Zellerbach Corporation, visited aboard after conducting a visit through the big kraft paper and board mill.

● Wednesday, after a trip through the beautiful San Juan Islands enroute to Bellingham, the visitors spent several hours in the modern unbleached sulphite pulp mill of the Puget Sound Pulp & Timber Company there and the afternoon was given over to golf. Thursday the cruise continued down Puget Sound via Deception Pass to Seattle and the men had another afternoon of golf at the Broadmoor Golf Club. In the evening the hosts entertained the party at the Washington Athletic Club for dinner, to which a number of Seattle men were invited to meet the members of the cruise.

On Friday, August 16th, the visitors were guests of Everett Griggs II at the logging operations of the St. Paul & Tacoma Lumber Company in the foothills of Mount Rainier where they saw one of Puget Sound's largest and most modern shows.

On their return to the ship they were taken on a tour of inspection of the St. Regis Kraft Company's bleached sulphate pulp mill by Resident Manager W. W. Griffith and General Superintendent Niles Anderson.

Friday night the "Moonlight Maid" headed for Everett and on Saturday the group visited the mills of the Soundview Pulp Company, Pulp Division Weyerhaeuser Timber Company, and the Everett Pulp & Paper Company. In the afternoon the yacht steamed for Seattle where farewells were said and the



When the "Moonlight Maid" stopped at Everett the Everett Herald's photographer took this picture of part of the group on board . . . Left to right, FRED ENDERS, Bulkley Dunton Pulp Company, New York; FRANK NEWMAN, Vice President of the Great Northern Railway Co., St. Paul, Minn.; W. IRVING OSBORNE, Jr., President, Cornell Wood Products Company, Chicago; DWIGHT G. W. HOLLISTER, President, A. P. W. Paper Company, Albany, New York; ANSON B. MOODY, Assistant Secretary, Everett Pulp & Paper Company, Everett, Washington; and, OSSIAN ANDERSON, President of the Puget Sound Pulp & Timber Company and Executive Vice President of the St. Regis Kraft Company. Seated in front is N. R. JOHANESON, President, Cellulose Sales Company, New York City.

"PUGET SOUNDERS" parted until the summer of 1941. Some remained for the Fall Meeting of TAPPI in Seattle the following week, others left for California and still others went directly East.

All spoke of their deep appreciation of the personal attention given their pleasure and comfort by Ossian Anderson and of the assistance given by Walter De Long, manager of the Puget Sound Pulp & Timber Company's Bellingham mill, by R. Mike Buckley of the St. Regis Kraft Company, and by Fred Enders of the Bulkley Dunton Pulp Company.

Fine weather ruled during the cruise and eveyone of the "PUGET SOUNDERS" of 1940 expressed delight at having the privilege of taking part in this educational and enjoyable affair. As time goes on this annual cruise will acquaint a large number of men from various parts of the world with the scenic and economic resources of the Pacific Northwest.

● The following men took part in the cruise of the "PUGET SOUNDERS" for 1940:

Joe Bulkley, president, Bulkley Dunton Pulp Company, New York City; **Frederick Enders,** Bulkley Dunton Pulp Company, New York City; **R. H. Evans,** director, Puget Sound Pulp & Timber Company, Seattle; **Mason Ford,** Bates International Company, Buenos Aires, Argentina; **C. W. Gallup,** New York & Pennsylvania Co., New York City.

E. R. Gray, vice-president, St. Regis Paper Company, New York City; **Everett Griggs II,** president, St. Paul & Tacoma Lumber Company, Tacoma; **Dwight G. W. Hollister,** president, A. P. W. Paper Company, Albany, N. Y.; **N. R. Johaneson,** president, Cellulose Sales Company, New York City.

S. Klabin, Klabin Irmaos y Cia., Sao Paulo, Brazil; **Jose de la Macorra,** general manager, Cia. des las Fabricas de Papel de San Rafael y Anexas, S. A., Mexico, D. F.; **Peter J. Massey,** vice-president, Combined Locks Paper Company, Combined Locks, Wisconsin; **A. V. Moore,** president, Moore-McCormack Steamship Company, New York City; **Frank R. Newman,** vice-president, Great Northern Railway, St. Paul, Minn.

W. Irving Osborne, Jr., president, Cornell Wood Products Company, Chicago, Illinois; **Meredith Parker,** San Francisco, California; **F. G. Stevenot,** president, Bankamerica Company, San Francisco, California; **Lane Taylor,** secretary-treasurer, W. C. Hamilton & Sons, Inc., Miquon Pennsylvania.

Earle Weaver, manager, purchasing department, International Paper Company, New York City; **W. H. Versfelt,** treasurer, St. Regis Paper Company, New York City; **Axel L. Wenner-Gren,** Electrolux Corporation, Sweden; **Walter De Long,** manager, Puget Sound Pulp & Timber Company, Bellingham, Washington; **Ralph M. Roberg,** sales manager, Puget Sound Pulp & Timber Company, Bellingham; **R. Mike Buckley,** St. Regis Kraft Company, Tacoma, Washington; **Ossian Anderson,** president, Puget Sound Pulp & Timber Company, Bellingham, and executive vice-president, St. Regis Kraft Company, Tacoma, Washington; **Lawson Turcotte,** secretary-treasurer, Puget Sound Pulp & Timber Company, Bellingham.

TAPPI Meeting Increases Camas Visitors' Roster

● Approximately 60 of the men and women who attended the 1940 Fall Meeting of TAPPI in Seattle in August visited the Camas, Washington pulp and paper mill of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, during the week following the convention.

Among those registering at the mill: B. W. Roland, S. D. Wells, John H. Graff and Harry F. Lewis, dean, of The Institute of Paper Chemistry, Appleton, Wisconsin.

Olin W. Callighan, Edgar Brothers Company, Kalamazoo, Michigan; Walter L. Barker, president of the Improved Paper Machinery Corporation, Nashua, N. H.; Charles Champion, manager of the paper mill department of R. T. Vanderbilt Company, New York; Rufus Warrell and George H. Fay, president and vice president, respectively, of the Mead Sales Company, New York and Chicago; Joseph L. Hoolihan, paper mill superintendent, Port Huron Sulphite & Paper Company, Port Huron, Michigan; George C. Dunn, secretary-treasurer, Dunn Sulphite Paper Company, Port Huron, Michigan.

H. J. Adrian, mill manager, Consolidated Water Power & Paper Company, Stevens Point, Wisconsin; N. L. Malcove, technical director, Northern Paper Mills, Green Bay, Wisconsin; Howard H. Harrison, vice president, Crystal Tissue Company, Middletown, Ohio; W. F. Gillespie, technical director, Gaylord Container Corproation, Pulp and Paper Division, Bogalusa, Louisiana; G. H. Rice, paper mill superintendent, Kalamazoo Vegetable Parchment Company, Parchment, Michigan; and, Jose de la Macorra, Jr., general manager of San Rafael y Anexas, S. A.—Compania de las Fabricas de Papel, Mexico.

Keyes Wins Left-Handed Golf Championship

● William Keyes, shift chemist for the Puget Sound Pulp & Timber Company at Bellingham, recently won the State Left-handed Gold Tournament at Seattle with a seven over par on the stiff Inglewood course.

Among the big trees at Lake Crescent some of the guests on the "Moonlight Maid" stopped for a picture . . . Left to right front row, EARLE WEAVER, Manager, Purchasing Department, International Paper Company, New York City; C. W. GALLUP, New York & Pennsylvania Company, New York City; MASON FORD, Bates International Co., Buenos Aires, Argentina; A. V. MOORE, President Moore-McCormack Steamship Co., New York City; S. KLABIN, Klabin Iramos y Cia., Sao Paulo, Brazil; FRED ENDERS, Bulkley Dunton Pulp Company, New York City . . . Back row, left to right, EVERETT GRIGGS II, President, St. Paul & Tacoma Lumber Company, Tacoma, Washington, and MEREDITH PARKER, San Francisco, Calif.

TAPPI Dinner Meeting Dates Announced

Vice Chairman Norman Kelly also announces the subject for the first dinner in Portland, October 8th, is to be "Stock Preparation" with Edward M. Root, Dilts Machine Works, presenting a paper.

● The last member of TAPPI had hardly had time to check out of the Olympic Hotel following the National Fall Meeting in Seattle last month before the newly elected officers of the Pacific Section got busy and met in Longview to outline plans for the Section's 1940-1941 series of six dinner meetings.

"The first dinner meeting," stated W. Norman Kelly, vice chairman in charge of programs, "will be held at the Heathman Hotel in Portland, Oregon, on Tuesday evening, October 8th, at 6 P. M.

"A paper will be presented on the subject of 'Stock Preparation' by Edward M. Root, in charge of research and development for the Dilts Machine Works of Fulton, N. Y., a division of Black-Clawson and Shartle Brothers. We are expecting that the industry-wide interest in the subject of Stock Preparation together with Mr. Root's informative paper, will be provocative of a general discussion which will occupy the balance of the evening," said Mr. Kelly.

Subsequent dinner meetings will be held November 12th in Everett; January 7th in Camas; February 4th in Tacoma; March 4th in Longview and April 8th in Port Angeles. Programs for these dinners will be announced well in advance.

The younger men in the pulp and paper industry on the Pacific Coast are being reminded of the opportunity for service to their companies, to the industry, and of monetary reward, by competing for the Pacific Section's annual Shibley Award of $50.00 for the best paper presented at a dinner meeting by a Pacific Coast mill man.

The reminder was in the form of a letter written by Vice Chairman W. Norman Kelly to all mill managers of Pacific Coast pulp, paper and board mills, asking them to acquaint their younger men with the advantages of competing for the Shibley Award. Mr. Kelly's letter follows:

September 17, 1940.

(To Mill Managers)

Dear Mr.....:

The Pacific Section of TAPPI is just entering its 1940-1941 season and, as has been the custom for some years, there will be a series of dinner meetings in the various parts of this district, advance notice of which will be given in the trade journals.

The Program Committee of the Section is endeavoring to make these programs of outstanding interest and to that end enlists your cooperation, both in helping to make the meetings well attended and in encouraging members of your organization to prepare papers for presentation at the meetings.

The Shibley Award will again be made this year, and we trust that there will be several papers entered by men in your Mill.

Thanking you, and with kindest regards,

Yours very truly,

(Signed) W. Norman Kelly,
Vice Chairman,
Pacific Section of TAPPI.

Everest and Boyce Named To Defense Committee

● The appointments of D. Clark Everest as group executive of the Pulp and Paper Section of the National Defense Advisory Commission and of Charles W. Boyce as assistant group executive was announced September 9th by Edward R. Stettinus, Jr., head of the Industrial Materials Division.

Mr. Everest is president of the Marathon Paper Mills Co., Rothschild, Wisconsin, and formerly president of the American Paper & Pulp Association. Mr. Boyce is vice president of the Northwest Paper Company, Cloquet, Minn., and formerly secretary of the American Paper & Pulp Association.

Herman Hoehne Named Longview Fibre Pulp Super

● Herman Hoehne, associated with the Longview Fibre Company of Longview, Washington, for a number of years, was named sulfate pulp mill superintendent August 1st by Robert S. Wertheimer, resident manager and secretary-treasurer.

Mr. Hoehne succeeds Herman Gevers who recently resigned after having served as pulp mill superintendent since the first unit of the kraft mill was completed early in 1927.

B. C. Mills Contribute To Canadian Air Funds

● Matching the gift of the company, employees of Powell River Company have contributed $8,000 for a trainer plane to be used by Canada's Royal Air Force units.

Pacific Mills, Ltd., has also subscribed funds for Vancouver's Air Supremecy Drive.

●

TAPPI Dinner Meeting Schedule 1940-1941

Mark these dates of the 1940-1941 Dinner Meetings sponsored by the Pacific Section of TAPPI, down on your calendar:

OCTOBER 8th	**PORTLAND**
NOVEMBER 12th	**EVERETT**
JANUARY 7th	**CAMAS**
FEBRUARY 4th	**TACOMA**
MARCH 4th	**LONGVIEW**
APRIL 8th	**PORT ANGELES**

National TAPPI Holds Interesting Meeting in Seattle

Second national meeting on the Pacific Coast, held in Seattle, August 20-23rd, introduces new ideas which meet with approval of the large number attending—Technical Program outstanding.

SINCE the announcement nearly two years ago that the 1940 Fall meeting of National TAPPI would be held in Seattle, men in the pulp and paper industry and those affiliated with it, have looked forward to attending with much pleasure.

It was thought that the second meeting of National TAPPI on the Pacific Coast would equal or surpass the excellent meeting held in Portland in 1934. But neither the timeliness of the West Coast meeting due to the greater dependence of the industry upon the region for pulp supplies caused by the European war, nor the excellence of the technical program, could have been foreseen.

Those who were able to come, nearly 500, found their visit to Seattle both profitable and enjoyable. The National Fall Meeting in Seattle, August 20-23rd, has passed into TAPPI history as outstanding for:

A timely, well-balanced technical program of exceptional quality.

Presentation of the technical program in an educational atmosphere conducive to close attention.

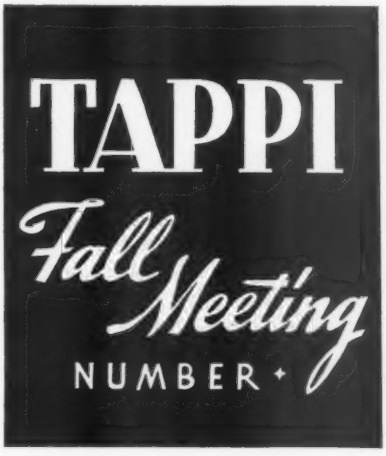
Very large attendance at the technical program sessions.

Practical dinner meeting discussions of broad operating subjects.

An enjoyable program of recreation and entertainment largely based upon the natural opportunities of the Puget Sound region.

Self-contained industry financing.

"Personally, I feel that it was one of the finest Fall conventions that I have ever attended and followed the spirit that I personally like to see in Fall conventions," said Ralph A. Hayward, vice president of National TAPPI, in a letter to PACIFIC PULP & PAPER INDUSTRY on September 3rd and printed in full elsewhere in this issue. 'Everyone with whom I have talked from the Middle West or the East has been unlimited in his praise of the hospitality extended him while in Seattle, and everyone has commented favorably upon the excellent way that the convention was handled."



"All possible credit is certainly due those men through whose intensive, unselfish work the convention was so successful," said N. W. Coster, who concluded his second term as chairman of the Pacific Section at the Fall Meeting.

A large number came from pulp and paper making regions outside the Pacific Coast, one hundred and eighty-seven out of nearly five hundred registering. Eighty-four of these came on the TAPPI Special over the Northern Pacific from Chicago and others came by car and by plane.

It is somewhat paradoxical that attendance at conventions is less when business is good than when it is not so good. "Too busy to leave the mill," was the comment of a number of men who had planned to be present at the Seattle meeting but who could not get away at the last minute.

Walter H. Swanson of Kimberly, Wisconsin, president of National TAPPI, was unable to be present at Seattle due to the illness of Mrs. Swanson. His many friends regretted his inability to attend. Vice President Ralph A. Hayward took charge in Mr. Swanson's absence.

From the arrival of the special train Monday evening until the last dance Friday night the 1940 meeting was a memorable affair. The industry on the Pacific Coast appreciated this opportunity to again be host to Eastern friends and to acquaint them with pulp, paper and paperboard producing facilities in this part of the country.

As a result of the meeting a greater number of Eastern people have become familiar with the timber resources of the Pacific Northwest and their potentialities for supplying the American paper industry with an increasing volume of wood pulp.

This number of PACIFIC PULP & PAPER INDUSTRY presents the story of the 1940 Fall Meeting complete with many photographs that it may be interesting and useful reference today and tomorrow for those who came to Seattle and for those who could not come.

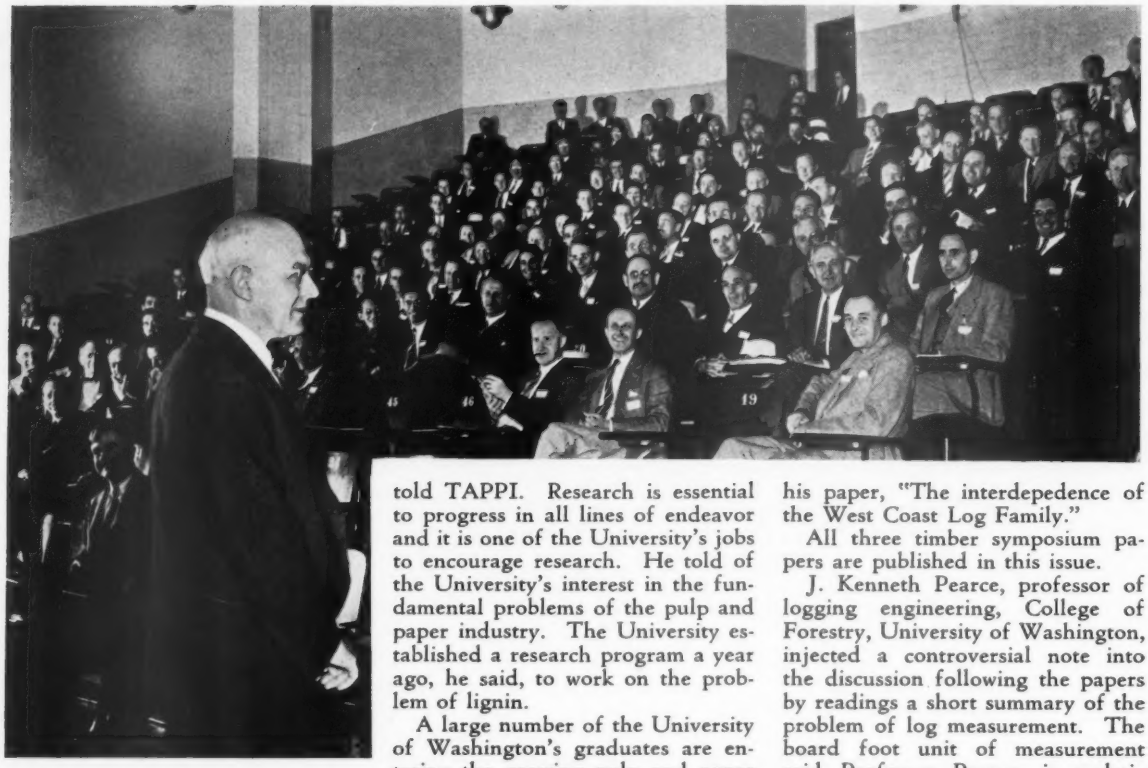
Guests Arrive on Special Train

● With the arrival of the TAPPI Special Train over the Northern Pacific at 8 P. M. on Monday, August 19th, the 1940 Fall Meeting actually got under way. A delegation of Western men met the special as it pulled in, and an official welcome to Seattle was extended by John A. Carroll, president of the City Council, acting for Mayor Langlie who was out of the city.

All of the men and women on the special had their room keys for the Olympic Hotel before the train arrived so no time was lost in registering. The reception in the Junior Ballroom at 8:30 served as a meeting place where Easterners and Westerners were soon renewing old friendships and making new ones.

Technical Sessions Began Tuesday Morning

● The 1940 Fall Meeting got down to business first thing Tuesday morning. Buses took the men out to the University of Washington campus for the sessions which were held in the new Daniel Bagley Hall, headquarters for the Department



DR. LEE PAUL SIEG, President of the University of Washington, welcomed the members of TAPPI at the first of the Technical Program sessions held on the University campus.

of Chemistry and Chemical Engineering.

At 9:30 a colored moving picture was shown of the Soundview Pulp Company's logging operations. This was followed by an address of welcome by Dr. Lee Paul Sieg, president of the University of Washington. N. W. Coster, chairman of the Pacific Section, opened the meeting with brief remarks, saying that it was the hope of the Section that the technical meetings would prove instructive and interesting to the guests. He then introduced Dr. Sieg.

The University of Washington appreciates the honor of acting as host to the Technical Association, said Dr. Sieg. It also appreciates the opoprtunity of serving the pulp and paper industry. The university tries to integrate itself into the fibres of the state. Its work is broader than a four-year course. It has a larger job, said Dr. Sieg, of dovetailing its work into the daily life of the State of Washington by dealing with the tangible and intangible cultural life of its people.

Much research work is being carried on by the University Dr. Sieg told TAPPI. Research is essential to progress in all lines of endeavor and it is one of the University's jobs to encourage research. He told of the University's interest in the fundamental problems of the pulp and paper industry. The University established a research program a year ago, he said, to work on the problem of lignin.

A large number of the University of Washington's graduates are entering the growing pulp and paper industry of the Pacific Northwest and contributing their share toward its advancement. The University is proud of their work.

Timber Symposium

● The symposium on Pacific Northwest Forest Resources started with the introduction of Professor Bror L. Grondal, College of Forestry, University of Washington, who outlined the need for clarification of the knowledge of the region's timber resources and timber problems. There has been much misunderstanding of the timber situation in the Pacific Northwest, said Professor Grondal, much misinterpretation of the factual data available.

Axel J. F. Brandstrom, forester, Crown Zellerbach Corporation, spoke in place of E. P. Stamm, logging manager, who was unable to be present due to the death of a near relative. Mr. Brandstrom spoke on "Economic Problems in Logging and Timber Management in the Douglas Fir Region."

The second speaker on the symposium was W. H. Price, forester for the Weyerhaeuser Timber Company. His subject was "Using the Forest Crop." The third speaker, Warren G. Tilton, forest engineer for the West Coast Lumbermen's Association and the Pacific Northwest Loggers Association, headed his paper, "The interdepedence of the West Coast Log Family."

All three timber symposium papers are published in this issue.

J. Kenneth Pearce, professor of logging engineering, College of Forestry, University of Washington, injected a controversial note into the discussion following the papers by readings a short summary of the problem of log measurement. The board foot unit of measurement said Professor Pearce, is archaic particularly in its use on small logs. If the cubic foot system were adopted more small logs would be brought out of the woods, maintained Professor Pearce, because they would have greater value. Today, he said, pointing to a graph, the buyer of small logs gets as much as 200 per cent more than he pays for.

Professor Pearce's statement and graph appear elsewhere in this number.

The meeting adjourned to the University of Washington Commons where some 235 men sat down to an informal luncheon.

In the afternoon session six papers were presented which are described under the technical program schedule.

After adjournment at 4:30 P. M. the men returned to the Olympic Hotel.

Tuesday Dinner and Dance

● On Tuesday evening some 415 men and women attended the dinner and dance in the Spanish Ballroom of the Olympic Hotel and nearly 50 more were served in the Marine Room as the crowd far exceeded advance reservations.

At the Speakers' Table were Mr. and Mrs. Clark C. Heritage, Mr. and Mrs. G. S. Brazeau, Ralph A. Hayward, N. W. Coster, R. G. Mac-

donald, Cecil Triplett, and A. E. Bachmann.

Mr. Coster, as chairman of the Pacific Section of TAPPI, introduced Ralph A. Hayward, vice president of National TAPPI. In his remarks Mr. Hayward said that the Pacific Section is doing a great deal of work and is following the aims of TAPPI. The Section has and is contributing much to the organization and other sections are following its lead.

The Shibley Award, given annually by the Pacific Section for the best paper presented at a dinner meeting, is in keeping with the highest aims of TAPPI, said Mr. Hayward. The younger men are contributing to the knowledge of the industry by preparing papers for the Shibley Award contest, added Mr. Hayward, and in so doing are developing themselves and making themselves more valuable to their own mill organizations.

Mr. Hayward announced that the 1940 Shibley Award, a scroll and a check for $50, was to be awarded to Cecil L. Triplett of the Technical Department of the Hawley Pulp & Paper Company at Oregon City, for his paper on "A Routine Test for the Organic Matter in Sulphite Liquors." He called on Mr. Triplett and presented him with the check and the certificate.

In reply Mr. Triplett said he appreciated greatly the honor of being given the Shibley Award and was glad that he had been able to contribute something to the pulp and paper industry.

The evening was then given over to dancing.

While the men had been attending the technical sessions at the University of Washington during the day, the ladies were entertained with a most interesting talk on commercial art by Miss Florenz Clark of Seattle who exhibited a number of her paintings. The talk, given in the auditorium of Frederick & Nelson, Seattle department store, was followed by an extensive display of Fall fashions.

Wednesday Program

● The all-day Technical Program sessions at the University of Washington began at 9 A. M. on Wednesday.

The Lignin Symposium, Section A, was presided over by George H. McGregor, past chairman of the Pacific Section and superintendent, Longview Mill, Pulp Division Weyerhaeuser Timber Company. Nine papers were presented, two by title, representing the latest reports on the extensive research being currently maintained in the United States and Canada upon the subject of lignin. These papers are listed under the technical program schedule.

Section B was presided over by Clark Heritage, past president of National TAPPI and technical director, Wood Conversion Company, Cloquet, Minn. Seven papers were given before Section B, one by title, and these are listed under the technical program schedule, also.

Following luncheon at the University of Washington Commons the meetings were resumed in Bagley Hall, in two sections.

At the Section A meeting in the afternoon, N. W. Coster, chairman of the Pacific Section and technical director, Soundview Pulp Company, Everett, presided. Four papers were presented.

Fred A. Olmsted, vice-chairman of the Pacific Section and technical supervisor, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, presided over Section B on Wednesday afternoon. Four papers were presented.

To hear a paper by O. T. Defieux, steam plant superintendent of the Crown Willamette Paper Co., Division of Crown Zellerbach Corporation, Camas, on "An Experience in Vocational Eduction," the two sections were merged and Mr. Coster presided.

Following this paper the technical sessions adjourned and the Pacific Section held a business meeting for the purpose of electing new officers. Details on the election will be found in another article in this number.

The Pacific Section voted its sincere appreciation to general chairman, G. S. Brazeau, and to his committee chairmen and their committees for the successful 1940 Fall Meeting, to the University of Washington and Dr. H. V. Tartar of the Department of Chemistry for his assistance in arranging for the Universities facilities as a member of the Executive Committee, and, to the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association for their active participation in working out the dinner meeting discussions and for cancelling their June meeting in order to avoid detracting from the National TAPPI meeting.

The Dinner Discussions

● For many of the men attending the highlight of the 1940 Fall Meeting was the Wednesday evening program of dinner meeting discussions. Over 370 men participated in the five dinner meetings which were devoted to the discussion of broad operating subjects.

The leaders of the dinner discussions had devoted much time to

UPON ARRIVAL of the TAPPI SPECIAL train on Monday evening, August 19th, the visitors from the East were greeted with a hearty welcome. Left to right, CLARK C. HERITAGE, Past President of TAPPI and Technical Director, Wood Conversion Co., Cloquet, Minn.; ROBERT B. WOLF, Manager, Pulp Division, Weyerhaeuser Timber Co.; N. W. COSTER, Chairman, Pacific Section of TAPPI, Technical Director, Soundview Pulp Co., Everett; HOWARD H. HARRISON, Member Executive Committee of TAPPI, Past President American Pulp & Paper Mill Superintendents Association, Vice President Crystal Tissue Co., Middletown, Ohio; I. J. STAFFORD, Superintendent, Neenah Paper Co., Neenah, Wisc.; JACK HAYWARD, son of RALPH A. HAYWARD (seated), Vice President of TAPPI and President of the Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.

Ralph A. Hayward, Vice President Of TAPPI, Writes . . . .

KALAMAZOO VEGETABLE PARCHMENT CO.

OFFICE OF
R. A. HAYWARD
PRESIDENT

PARCHMENT
KALAMAZOO
MICHIGAN

September 3, 1940

Mr. L. K. Smith
Pacific Pulp & Paper Industry
71 Columbia Street
Seattle, Washington

Dear Mr. Smith:

I have just returned from my trip to the West Coast and I find your letter of August 27 waiting for me.

I shall certainly appreciate the photograph that you are sending. I also appreciate the very fine Convention number of PACIFIC PULP & PAPER INDUSTRY that you published and I am keeping a copy of this for my permanent records.

Everyone with whom I have talked from the Middle West or the East has been unlimited in his praise of the hospitality extended him while in Seattle, and everyone has commented favorably upon the excellent way that the Convention was handled.

Personally I feel that it was one of the finest fall conventions that I have ever attended and followed the spirit that I personally like to see in the fall conventions. Our winter convention is, of course, always held in New York, and as the New York meeting is the largest of the year, we have many sectional papers but it is difficult with the confusion that exists under this condition to have a real educational atmosphere.

Because of this, it seems to me most appropriate that our fall meetings be of a real educational type, which can best be held in connection with some of the universities. Certainly the University of Washington supplied a perfect atmosphere for the convention, and we were all much impressed with the cooperation they are extending to the pulp and paper industry.

I am sorry that the distance was so great that more people could not find it possible to attend the convention from this section as I am sure they would have profited a great deal from the trip.

I want to thank all those connected with the Pacific Section for their efforts in arranging for these excellent meetings. I particularly appreciate the cooperation extended by the pulp and paper manufacturers on the Pacific Coast in helping to finance the expenses of the convention. Their assistance made it completely possible to eliminate any commercial atmosphere and to hold the spirit to strictly an educational one.

Very sincerely yours,

K V P - R. A. Hayward

RAH:WN

Speakers at the TIMBER SYMPOSIUM . . . Left to right, AXEL J. F. BRANDSTROM, Forester, Crown Zellerbach Corp., Portland; W. H. PRICE, Forester, Weyerhaeuser Timber Co., Tacoma; Professor, BROR L. GRONDAL, College of Forestry, University of Washington, who led the Timber Symposium; WARREN G. TILTON, Forest Engineer, West Coast Lumbermen's Association and Pacific Northwest Loggers Association.

preparing extensive outlines of the subjects, and these, coupled with qurestions from the floor, developed much useful, practical information. The discussions were not recorded but the chairmen summarized the discussions and these are included in this number.

The five dinner meetings covered the following subjects: ACID PULPING AND BLEACHING; ALKALINE PULPING AND BLEACHING; POWER; PAPER MACHINE PROBLEMS; and APPLIED HYDRAULICS.

It was close to midnight when the discussion groups broke up in units to continue the arguments for several more hours.

Ladies Entertained

● The ladies were kept busy with an enjoyable program on Wednesday. Those who desired to play golf went to the nearby Broadmoor Golf Club at 10:30 a. m. and played all afternoon.

At 2 p. m. the garden tour took most of the ladies at the meeting on a sightseeing trip of the city and to two of the finest gardens in Seattle, those of Mrs. H. F. Ostrander and of Mrs. Donald G. Graham. Following the garden visits a tea was enjoyed at the Broadmoor club house, where the golfers joined the garden party.

In the evening, Ray Smythe, chairman of the ladies entertainment committee, gave an illustrated talk, "An Intimate Discussion of the Stars," from the recently published book, "Stars Ahead," by Josephine and Ray Smythe. A large number of the ladies attended and enjoyed Mr. Smythe's interpretation of the influence exerted by the stars.

Woods Trip and Victoria Trip

● With school days at the University over the men took a field trip into the woods on Thursday and the ladies enjoyed a boat trip to Victoria, B. C.

At the invitation of the Soundview Pulp Company of Everett, Washington, 260 men and women traveled by bus to Hamilton and there took the Loggers' Special into Soundview's extensive timber operations in the foothills of the Cascade mountains. It was a most educational trip especially so for the Easterners who hadn't seen at first hand the big timber of the Pacific Northwest nor the methods employed in its harvesting for pulp and for lumber.

Headed by chairman of the ladies program committee, Ray Smythe, 83 ladies took the Canadian Pacific boat to Victoria, leaving at 9 a.m.

Wednesday afternoon Technical Program speakers, left to right, DR. KENNETH A. KOBE, Department of Chemical Engineering, University of Washington; DR. L. C. HAFFNER, Chemical Engineer, Portland; DR. H. K. BENSON, Executive Officer, Department of Chemistry and Chemical Engineering, University of Washington, who presided; Professor W. L. BEUSCHLEIN, Department of Chemical Engineering, University of Washington; ARTHUR WALTON, Rayonier Incorporated, Shelton Division; SIDNEY D. WELLS, The Institute of Paper Chemistry, Appleton, Wisc. Front Row, left to right, HARRY F. LEWIS, Dean, The Institute of Paper Chemistry, Appleton; W. F. GILLESPIE, Technical Director, Gaylord Container Corp., Pulp and Paper Division, Bogalusa, Louisiana.

CECIL L. TRIPLETT of the Technical Dept., Hawley Pulp & Paper Co., being presented with the 1940 Shibley Award of the Pacific Section of TAPPI by RALPH A. HAYWARD, Vice President of TAPPI. The award, a check for $50, was given to Mr. Triplett for his paper "A Routine Test for the Organic Matter in Sulphite Liquors."

Arriving in Victoria at 1 p. m. they enjoyed luncheon at the world famous Empress Hotel. Afterward some went shopping in this quaint English type city and others visited Butchart's Gardens, known to enthusiastic gardeners everywhere as one of the world's finest.

At 5 p. m. the boat sailed for the return trip to Seattle and dinner was served on board. The restful trip to and from Victoria on the big liner took the ladies through the beautiful San Juan Islands in Puget Sound and furnished an opportunity for them to become well acquainted before the ship returned to Seattle at 9 p. m.

Friday's Program

● No formal program was scheduled for the final day. A number of the men visited the mills on Puget Sound and others engaged in the recreational events, salmon fishing and golf.

The salmon derby is indigenous to Puget Sound. The TAPPI Salmon Derby at Everett starting at 5 a. m. was a novelty to those from other sections of the country and they thoroughly enjoyed the sport, although no really big salmon were biting.

At 6 a. m., 55 men and women were on hand at the Everett Yacht Club. General chairman, G. S. Brazeau, and entertainment committee chairman, James Brinkley, soon had them all fitted out with the proper gear and placed in boats manned by expert fishermen from among the mill men in Everett. By 11:30 a. m. the derby was over and Mrs. Edward Anderson of Hamilton, Ohio, was announced as the winner with an eight pound salmon.

Many of the men took in both the salmon derby and the golf tournament which began at 1 p. m. at the Rainier Golf Club. About 60 men took part under the direction of Nat S. Rogers, chairman of the golf committee who was assisted by Ralph Dickey.

The ladies were busy on Friday with a luncheon in the Olympic Bowl. They gathered to hear Mrs. A. G. Natwick give her personal experiences as a delegate to the Republican National Convention. Following the luncheon they enjoyed a bridge tournament for which table prizes were awarded. The door prizes went to Mrs. Earl G. Thompson of Seattle and Miss Phyllis Hansen of Green Bay, Wisconsin.

The Concluding Banquet

● A reception was held in the Olympic Bowl before the final banquet in the Spanish Ballroom on Friday evening, concluding the 1940 Fall Meeting of TAPPI in Seattle.

Seated at the Speakers' Table

Speakers before Section B of the Technical Program, Wednesday morning, August 21st, left to right, C. A. HULSART, The Babcock & Wilcox Co., New York; ROGER E. CHASE, R. E. Chase & Co., Tacoma; NELS G. JOHNSON, Assistant General Sales Manager, Simonds Worden White Co., Dayton, Ohio; V. L. TIPKA, Research Engineer, Hawley Pulp & Paper Co., Oregon City, Ore., who delivered W. G. MacNaughton's paper on "The Flowbox and Slice on Newsprint Machines"; CLARK C. HERITAGE, Technical Director, Wood Conversion Co., Cloquet, Minn., and past President of TAPPI, who presided; G. P. VINCENT and J. F. WHITE, Research Development Dept., Mathieson Alkali Co., New York.

were: J. D. Zellerbach, toastmaster; Mr. and Mrs. Howard H. Harrison (Mr. Harrison is a member of the Executive Committee of TAPPI); Mr. and Mrs. N. W. Coster (Mr. Coster is the retiring chairman of the Pacific Section); Mr. and Mrs. Anton P. Siebers (Mr. Siebers is chairman of the Pacific Division of the American Pulp & Paper Mill Superintendents Association); Mr. and Mrs. G. S. Brazeau (Mr. Brazeau was general chairman of the 1940 Fall Meeting); Mr. and Mrs. L. C. Anderson of Thorold, Ontario (Mr. Anderson is a member of the Executive Committee of TAPPI); Ralph A. Hayward, vice president of TAPPI; R. G. Macdonald, secretary of TAPPI; and Dr. Charles Copeland Smith, speaker of the evening.

Mr. Hayward announced the salmon derby prizes and called upon Mr. Rogers to award the golf prizes. These are given elsewhere.

For her talk at the ladies luncheon Friday on "Experiences of a Delegate to the Republican National Convention," Mrs. A. G. Natwick of Camas, was awarded a large Willkie button by Mr. Hayward.

In introducing Mr. Zellerbach, Mr. Hayward remarked that this part of the country owed a debt of gratitude to his companies for their development of the pulp, paper and board industries and the resultant gain in employment for people living on the Pacific Coast.

Mr. Zellerbach ackonwledged the introduction saying he was very happy to be present at the meeting of the Technical Association which was doing such fine work in the industry. He introduced those at the speakers' table and remarking that he understood this was a streamlined convention which he interpreted as meaning fast, so he immediately introduced Dr. Smith of the National Association of Manufacturers' speakers' bureau, whose subject was, "Freedom—Our American Dynamic."

Dr. Smith's Address

● "Until we can fully understand the meaning of the word 'democracy," said Dr. Smith, "let us follow Dorothy Thompson's suggestion and declare a moratorium on its use." We don't really know what it means. Hitler said at one time that National Socialism was the greatest democracy. A month later Stalin said he was the world's number one democrat. Different minds interpret the word differently said Dr. Smith.

"For the variable word 'democracy' let us substitute one we can all understand — the word 'FREEDOM'," suggested Dr. Smith. The United States has been free from the beginning. We have known nothing else. The country was founded by those seeking freedom. Freedom, said Dr. Smith, is like oxygen, once it gets into the bloodstream it creates a feeling that never leaves one.

"Everything we have in this country we possess because we are free," Dr. Smith reminded his interested audience. "Freedom is the dynamic —the steam in the cylinder that makes the wheels go round."

A short time ago H. W. Prentice, president of the National Association of Manufacturers, said that here in America in three decades, 1900 - 1930, America's population grew 60 per cent but in this same period the quantity of manufactured goods increased 200 per cent. There

The dinner Tuesday evening, August 20th, was attended by 415 ladies and gentlemen.

were 4,000 cars made in 1900 and 4,000,000 cars produced in 1940.

"An hour's work in an American factory," said Dr. Smith, "will buy more food, more luxuries than 12 hours work in Russia and 4 times more than in Germany, all because of our freedom."

"We have been listening in recent years to what is wrong with America, why don't we tell the world what is right with America?" Dr. Smith challenged his listeners.

"If it is true that American prosperity is the fruit of American freedom, then limitation of freedom will limit prosperity. We must learn to revalue the freedom we enjoy that once again it may become precious to us. We must see to it that our freedom is not successfully assaulted."

Dr. Smith was given an ovation upon the conclusion of his talk. Mr. Hayward thanked him and coupled Dr. Smith's remarks on freedom to the technical association's work by reminding those present that no technical work is of any avail unless we have the freedom to apply it. We must combat defeatism and end this stagnant period in American thought, said Mr. Hayward.

In concluding the program he extended the appreciation of TAPPI to all who made this meeting "one of the finest he had ever attended." Mr. Hayward thanked general chairman G. S. Brazeau, the University of Washington, the Northern Pacific Railway, and the Pacific Section and its chairman, N. W. Coster; and the Superintendents Association for its help. He said that the papers presented were of unusually high order and that he had great admiration for the ability to plan and carry out such a fine convention.

Following the banquet the sound moving picture, "Magic Fibers," was shown in the Junior Ballroom. This recently produced picture was sponsored by Pacific Northwest pulp and timber industries and shows the utilization of the great Pacific Northwest forests in the manufacture of high quality sulphite and sulphate pulps.

The floor of the Spanish Ballroom was cleared and the 1940 Fall Meeting of TAPPI ended with dancing.

Technical Program---
Fall Meeting of TAPPI, Seattle, August 20-23rd

TUESDAY, AUGUST 20th

Morning Session

9:30 A.M. Technical program of the 1940 Fall Meeting of TAPPI opened by N. W. Coster, Chairman of the Pacific Section.

Ralph A. Hayward, Vice President of TAPPI, was introduced by Mr. Coster. Mr. Hayward introduced Dr. Lee Paul Sieg, President of the University of Washington, who delivered an address of welcome to TAPPI.

9:45 A.M. Presentation of the color moving picture, showing the timber and logging operations of the Soundview Pulp Company.

Pacific Northwest Forest Resources Symposium

10:15 A.M. Mr. Hayward introduced Bror L. Grondal, Professor of Forest Products, College of Forestry, University of Washington, who presided.

The symposium presented the practical viewpoint of private forest management toward the production of timber primarily for wood pulp and secondarily for lumber. Due consideration was given to the area of Pacific Northwest forest land necessary to furnish a perpetual supply of pulpwood for an average size pulp mill.

Leading the Dinner Meeting on "ACID PULPING and BLEACHING," was W. NORMAN KELLY, Manager, Longview Mill, Pulp Division Weyerhaeuser Timber Co., Longview, Wash.

The major forestry problems involved were discussed by:

Axel J. F. Brandstrom, forester, Crown Zellerbach Corporation, Portland, Oregon.

W. H. Price, Forester, Weyerhaeuser Timber Company, Tacoma, Washington.

Warren Tilton, Forester, West Coast Lumbermen's Association, Seattle.

12:30 P.M. Luncheon at the University of Washington Commons.

Afternoon Session

Auditorium of Bagley Hall.

Dr. H. K. Benson, Executive Officer, Department of Chemistry and Chemical Engineering, University of Washington, presiding.

2:00 P.M. "The Effect of Combined Sulfur Dioxide Upon the Liquid Film Absorption Coefficient," by W. L. Beuschlein, Professor of Chemical Engineering, and Milton A. Porter, Department of Chemistry and Chemical Engineering, University of Washington.

2:25 P.M. "Pulping of Douglas Fir by Nitric Acid," by Arthur Walton, Department of Chemistry and Chemical Engineering, University of Washington.

2:50 P.M. "A Modified Sodium Sulfite Process for the Pulping of Douglas Fir," by L. C. Haffner, Consulting Chemical Engineer, Portland, Oregon, and Kenneth A. Kobe, Professor of Chemical Engineering, University of Washington.

3:15 P.M. "The Chemical Composition of Balsam Bark," by Harry F. Lewis, Research Associate and Dean, Institute of Paper Chemistry, and Kenneth D. Hay, Graduate Student, Institute of Paper Chemistry, Appleton, Wisconsin.

3:40 P.M. "The Use of Soda Ash-Sulfur in Sulfate Recovery Units from the Operating Viewpoint," by W. F. Gillespie, Technical Director, Pulp & Paper Mill Division, Gaylord Container Corporation, Bogalusa, Louisiana.

4:05 P.M. "The Applications and Limitations of the Rod Mill," by Sidney D. Wells, Research Associate, Institute of Paper Chemistry, Appleton, Wisconsin.

4:30 P.M. Adjournment.

Showing a part of the head table at the Wednesday Dinner Meeting discussion on "PAPER MACHINE PROBLEMS," led by ROBERT S. WERTHEIMER, Resident Manager and Secretary-Treasurer, Longview Fibre Co., Longview, Wash. Mr. Wertheimer is on the right. On his right is N. M. BRISBOIS, Vice President in Charge of Manufacturing, Fibreboard Products, Inc., Stockton; L. S. McCURDY, Paper Mill Superintendent, National Paper Products Co., Division Crown Zellerbach Corp., Port Townsend, Wash.; and, ROBERT E. BUNDY, Manager, Fibreboard Products, Inc., Port Angeles, Wash. In front of Mr. Wertheimer and Mr. Brisbois, is HOWARD H. HARRISON, Vice President, Crystal Tissue Co., Middletown, Ohio, who served as President of the American Pulp & Paper Mill Superintendents Assn. for 1939-1940. Mr. Harrison is a member of the Executive Committee of TAPPI.

WEDNESDAY, AUGUST 21st

Morning Session

The Wednesday morning program was held in two sections, A and B, presented simultaneously in the auditorium and large lecture room of Bagley Hall.

SECTION A

Lignin Symposium

9:00 A.M. George H. McGregor, past Chairman of the Pacific Section of TAPPI and Superintendent, Longview Mill, Pulp Division, Weyerhaeuser Timber Company, presided. The following papers were presented and discussed:

"Recent Advances in the Chemistry of Lignin," by F. E. Brauns, Research Associate, Institute of Paper Chemistry, Appleton, Wisconsin.

"The Hydrogenation of Lignin," by E. E. Harris, Derived Products, U. S. Forest Products Laboratory, Madison, Wisconsin.

"Recent Developments Relating to the Structure and Formation of Lignin," by Joseph L. McCarthy, Division of Industrial and Cellulose Chemistry, McGill University, Montreal, Canada.

"The Chemistry of Butanol Lignin," by A. J. Bailey, Acting Director of Lignin and Cellulose Research, University of Washington.

"The Action of Ultraviolet Light on Lignin," by L. V. Forman, Institute of Paper Chemistry, Appleton, Wisconsin. Present address, Mead Corporation, Chillicothe, Ohio.

"The Ultraviolet Absorption Spectrum of Lignin and Related Compounds," by R. E. Glading, Institute of Paper Chemistry. Present address, West Virginia Pulp & Paper Company, Luke, Maryland.

"The Preparation of Lignin from Calcium Lignosulfonate," by H. K. Benson, Professor of Chemical Engineering, and Irwin A. Pearl, Department of Chemistry and Chemical Engineering, University of Washington.

"The Preparation and Properties of Butanol Lignon," by A. J. Bailey, Acting Director of Lignin and Cellulose Research, University of Washington, Seattle. (To be read by title).

"The Heterogeneity of Lignin," by A. J. Bailey, Acting Director of Lignin and Cellulose Research, University of Washington, Seattle. (To be read by title).

SECTION B

Clark C. Heritage, past President of TAPPI and Technical Director, Wood Conversion Company, Cloquet, Minnesota, presiding. The following papers were presented at the Wednesday morning session of Section B:

The Dinner Meeting on "POWER" was led by HENRY W. BEECHER, Consulting Engineer of Seattle. Mr. Beecher appears at the end table in the white coat.

9:00 A.M. "Air Filtration in the Pulp and Paper Industry," by Roger E. Chase, chemical engineer, R. E. Chase & Company, Tacoma, Washington.

9:35 A.M. "The Flowbox and Slice on Newsprint Machines," by W. G. MacNaughton, Engineer, News Print Service Bureau, New York City.

10:35 A.M. "Bark Burning Furnaces for the Pulp and Paper Industry," by C. A. Hulsart, Sales Engineer, The Babcock & Wilcox Company, New York City.

11:05 A.M. "Chipper Knives and Chipper Knife Grinding," by Nels G. Johnson, Assistant General Sales Manager, Simonds Worden White Company, Dayton, Ohio.

11:35 A.M. "A Comparison Between Chlorite and Hypochlorite as Bleaching Agent for Wood Pulp," by J. F. White and G. P. Vincent, Research Development Department, Mathieson Alkali Works, Inc. Mr. White is located in Niagara Falls and Mr. Vincent in New York City.

12:05 P.M. The following two papers were presented by title.

"Alkaline Pulping of Western White Pine," by J. S. Martin, Associate Engineer, and M. W. Bray, Senior Chemist, U. S. Forest Products Laboratory, Madison, Wisconsin.

"Conversion of Holocellulose to Pulp Suitable for High Grade Papers," by G. J. Hajny and G. J. Ritter, U. S. Forest Products Laboratory, Madison, Wisconsin.

Afternoon Session

SECTION A

N. W. Coster, Chairman of the Pacific Section of TAPPI and Technical Director, Soundview Pulp Company, Everett, Washington, presiding.

The following papers were presented at the Wednesday afternoon session of Section A:

2:00 P.M. "Cross Sections of Pulp Fibers," by John H. Graff, Research Associate, Institute of Paper Chemistry, M. A. Schlosser and Eda K. Nihlen, Technical Assistants, Institute of Paper Chemistry, Appleton, Wisconsin.

2:30 P.M. "Influence of Dyestuffs on the Opacity of Papers," by E. R. Laughlin, Technical Laboratory, E. I. Du Pont de Nemours & Company, Inc., Wilmington, Delaware.

3:00 P.M. "Effect of Subliners on Lined Board Brightness," by W. R. Willets, R. T. Bingham and L. H. Eriksen, Paper Development Laboratory, Titanium Pigment Corporation, New York City.

3:25 P.M. "Heat Transfer Characteristics of an Indirect Heated Experimental Digester," by L. G. Jenness and J. G. L. Caulfield, Dept. of Chemical Engineering, University of Maine, Orono, Maine.

SECTION B

Fred A. Olmsted, Vice Chairman, Pacific Section of TAPPI and Technical Supervisor, Crown Willamette Paper Co., Division, Crown Zellerbach Corp., Camas, presiding.

The following papers were presented at the Wednesday afternoon session of Section B:

The Dinner Meeting on "ALKALINE PULPING and BLEACHING," was led by DR. CARL E. CURRAN, Chief, Section of Pulp and Paper, U. S. Forest Products Laboratory, Madison, Wisc.

The Dinner Meeting on "APPLIED HYDRAULICS" was led by R. V. BINGHAM, President of the Bingham Pump Co., Portland. Mr. Bingham, second from right, back row.

2:00 P.M. "Notes on the Use of Starch in Papermaking," by B. W. Rowland, Research Associate, Institute of Paper Chemistry, Appleton, Wisconsin.

2:25 P.M. "Comparative Evaluation of the Different Methods of Dirt Count of Pulp," by Alan P. Adrian, Graduate Student, Institute of Paper Chemistry, and John H. Graff, Research Associate, Institute of Paper Chemistry, Appleton, Wisconsin.

2:45 P.M. "A Study of the Relative Moisture-Vapor Resistances of Paper and Other Materials for Use in Packaging and Wrapping Frozen Fruits and Vegetables," by William Rabak, Associate Chemist, U. S. Frozen Pack Laboratory, Bureau of Agricultural Chemistry and Engineering, U. S. Department of Agriculture, Seattle.

3:05 P.M. "Applications of Spectrographic Analysis to Pulp and Paper Problems," by Philip Nolan, Research Associate, Institute of Paper Chemistry, Appleton, Wisconsin.

SECTIONS A AND B IN JOINT SESSION

N. W. Coster presiding.

3:25 P.M. "An Experience in Vocational Instruction," by O. T. Defieux, Steam Plant Superintendent, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington.

PACIFIC SECTION BUSINESS MEETING

4:00 P.M. The annual business meeting of the Pacific Section of TAPPI was held in the auditorium of Bagley Hall for the purpose of electing officers for 1940-1941 and transacting such other business as came before the section.

FLASHLIGHTS AT THE DINNER MEETINGS . . . Left to right, the late H. E. "Heinie" OSTENSON, Paper Mill Superintendent, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, who took a very active part in the discussion at the Paper Machine Problems Dinner; ALLAN HYER, Black-Clawson Co., Hamilton, Ohio; and W. R. BARBER, Technical Director, Crown Zellerbach Corp., Camas.

In the middle picture, DEWEY RIGG, Plant Engineer, Longview Fibre Co., Longview, Wash.; R. V. BINGHAM, President, Bingham Pump Co., Portland, who served as leader of the Applied Hydraulics Dinner Discussion; and, ANSON B. MOODY, Assistant Secretary, Everett Pulp & Paper Co., Everett, Washington.

At the right, A. S. "STEVE" VIGER, Superintendent, Shelton Division, Rayonier Incorporated, listens attentively.

At the SPEAKERS' TABLE Friday evening, left to right, G. S. BRAZEAU, General Chairman, 1940 Fall Meeting of TAPPI; MRS. BRAZEAU, DR. CHARLES COPELAND SMITH, Speaker of the evening; J. D. ZELLERBACH, Toastmaster, President of Crown Zellerbach Corporation, San Francisco, and Executive Vice President of Rayonier Incorporated and Fibreboard Products Inc.; RALPH A. HAYWARD, Vice President of TAPPI and President, Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.

N. W. Coster, Chairman of the Pacific Section presided.

4:30 P.M. Adjournment.

Evening Sessions

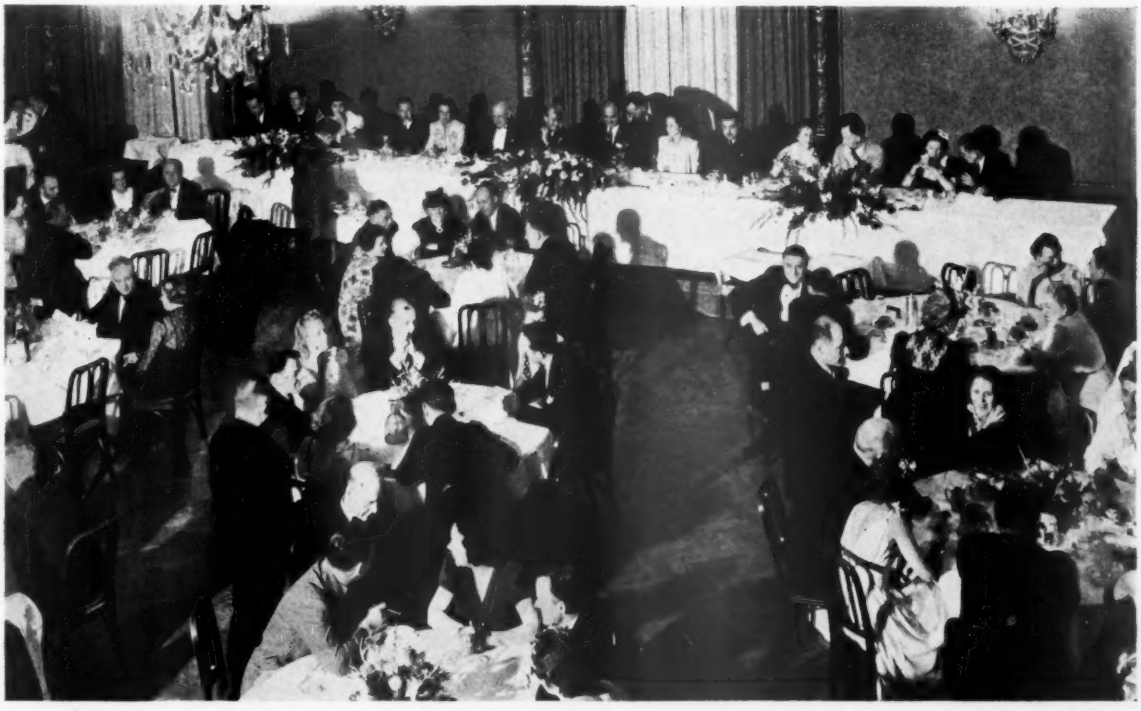
GROUP DINNERS

6:30 P.M. Five Group Dinners were held in the private dining rooms off the Junior Ball Room foyer in the Olympic Hotel.

Each dinner was devoted to the discussion of selected subjects under a group leader for each:

ACID PULPING AND BLEACHING

Group Leader: W. Norman Kelly, Manager Longview Mill, Pulp Division, Weyerhaeuser Timber Company, Longview, Washington.



The final banquet on Friday evening, August 23rd, was attended by nearly 400 members and friends of TAPPI. Speakers' table in the background.

ALKALINE PULPING AND BLEACHING

Group Leader: Dr. Carl E. Curran, Chief, Section of Pulp and Paper, U. S. Forest Products Laboratory, Madison, Wisconsin.

POWER

Group Leader: Henry W. Beecher, consulting engineer, Seattle.

APPLIED HYDRAULICS

Group Leader: Randolph V. Bingham, President of the Bingham Pump Company, Portland, Oregon.

PAPER MACHINE PROBLEMS

Group Leader: R. S. Wertheimer, Resident Manager and Secretary-Treasurer, Longview Fibre Company, Longview, Washington.

Dinner Discussion Summaries

● The discussions at the dinner meetings on Wednesday evening, August 21st, were not recorded. At the time of going to press two had been summarized by the chairmen, Power and Alkaline Pulping and bleaching. These are presented here together with the outlines of the other three dinners, Acid Pulping and Bleaching; Applied Hydraulics; and Paper Machine Problems.

POWER

● The meeting opened with H. W. Beecher, consulting engineer, presiding, there being about sixty men present.

Inasmuch as comparatively few of the Easterners attending the convention were from the power production departments of the Eeastern mills, the attendance was confined largely to the Western members of TAPPI.

After introductory remarks by the chairman, discussion developed on the subject of hog fuel burning and the proper designs of boilers and furnaces for economical use of this fuel. It was pointed out that the mills in the Pacific Northwest were unique in having available, from adjacent sawmill operations, a reasonably dependable supply of hog fuel so that the western mills did not have to depend upon oil or coal except for intermittent breakdown service. This situation has been responsible for an entirely different design of boiler room and entirely different operating conditions from eastern mills where it has been necessary to maintain primary steam producing plant with outside purchased fuel and burn in separate units the wood waste from the chip production department.

Another topic of discussion developing considerable information was the question of cinder nuisance and its elimination. The selection of prime movers, with particular respect to the advantages to be gained from the use of extraction turbines and back pressure units using the extracted or exhaust steam for process, was thoroughly discussed with particular reference to the buying from existing public utility companies any excess power over that which could be economically produced from process steam.

Considerable time was given to the discussion of the demands of the pulp and paper mill for close voltage regulation and the steps that had been taken in various plants to secure same.

As a result, the paper presented earlier in the convention by Mr. Hulsart on the modern boiler setup and advantages of pre-heated air, there developed at the meeting quite active discussion of the relative merits of air preheaters and hog fuel dryers as a means of securing higher economies and greater capacities when burning hog fuel of high moisture content.

Dancing following the dinner Tuesday evening in the Spanish Ballroom, Olympic Hotel, Seattle.

The question of suitable feedwater and its proper treatment was thoroughly discussed.

In addition to Mr. H. W. Beecher, in his capacity as chairman of the committee, the following individuals took part in the discussion of the subjects above enumerated: Evald Anderson, Western Precipitation Co.; A. H. Onstad, Weyerhaeuser Timber Co.; Carl Reis and Ed Norton of the Pulp Division Weyerhaeuser Timber Co., Everett; Charles Shively, Soundview Pulp Co., William R. Gibson, Northwest Filter Co.; Blaine Kerns and Kendall L. Howe, Westinghouse Electric & Mfg. Co., Seattle; Charles Hulsart, The Babcock & Wilcox Co., New York; R. E. Chase, Combustion Engineering Co., Tacoma; William McKenzie, Rayonier Incorporated; F. J. Lammers, International Filter Co., Chicago; U. A. Hammett, Permutit Co.; O. T. Defieux, Crown Zellerbach Corporation, Camas; and Rufus Maier, General Electric Co., Portland.

ALKALINE PULPING AND BLEACHING

• The alkaline pulping group dinner meeting was well attended, between 80 and 100 persons being present. Two hours were devoted to discussion of various subjects which had been set up in advance by the committee and covered such subjects as the effect of sulfidity and of temperature in cooking; the occurrence and treatment of pitch in sulfate pulping; the relative yields of pulps from different species, especially from true firs and western hemlock; formation of scale in digesters and recovery units; pulp washing and similar problems; the value of chip packers and liquor circulation systems in cooking; and a number of similar factors.

An attempt to evoke discussion on the production of bleachable kraft pulps and the bleaching operation did not elicit much discussion. However, the other topics were actively discussed by various persons in attendance and by the members of the committee. The chairman of the meeting was Dr. C. E. Curran of the Forest Products Laboratory, Madison, Wis., assisted by Niles Anderson of the St. Regis Kraft Company, Tacoma, Wash., Carl Fahlstrom of the Longview Fibre Company, Longview, Wash., and W. F. Gillespie of the Gaylord Container Corporation, Bogalusa, La.

MODERN MILL HYDRAULICS

• The outline prepared by R. V. Bingham, president of the Bingham Pump Company, Portland, who was leader of the Modern Mill Hydraulics dinner discussion, follows:

Selection of pumping equipment to suit mill design versus designing of mill structures to suit pumping operations—

A. Savings to be gained in new mill design and construction.

1. Stock Pumps capable of pumping directly from deckers and washers instead of from dump chests, and white water pumps capable of pumping from small open sumps instead of from chests, arranged for gravity flow, offer the following advantages:
   - a. Permits main buildings to be built for housing equipment for processing only — reflecting in substantial savings in size and cost.
   - b. Eliminates one or more floors in main buildings usually required for gravity flows in dumping, reflecting substantial savings in construction cost.
   - c. Lower buildings establish lower pumping heads, reflecting savings in power cost.
   - d. Permits locating storage chest outside of main buildings at convenient locations without restriction to location of processes or processing machinery.
   - e. Elimination of secondary storage chest or dump chest usually required for delivering pulp and white water from chests to various points in the mill flow for further processing, reflects in a power saving.
   - f. Elimination of secondary storage chest or dump chest eliminates duplication of agitating equipment — reflecting a saving in cost of equipment and operation.
   - g. Permits locating processing equipment for independent operation.
     (1). Screens may be located on ground floor.

PRIZE WINNERS . . . At the banquet Friday evening, August 23rd, the winners of the Salmon Derby and Golf Tournament received their prizes. In the top picture, N. L. MALCOVE, Technical Director, Northern Paper Mills, Green Bay, Wisconsin, who received a walking penguin for catching the smallest fish other than a salmon. He caught a six-ounce sandab.

JAMES d'A. CLARK, The Institute of Paper Chemistry, Appleton, Wis., took second prize and received a genuine Siwash hand-knitted sweater. Mr. Clark caught the second largest salmon.

The third largest salmon was caught by J. J. McDONALD, Brown Company, New York City, who won a green wool shirt, specially made for guides at Mount Rainier.

SOME OF THE GOLF WINNERS . . . M. B. HOUSTON, Rayonier Incorporated, Seattle, who had the low net in the First Division; E. P. INGALLS, Production Manager, S. D. Warren Co., Cumberland Mills, Me., nearest pin in the Second Division; FRANK C. KUESS, St. Regis Kraft Co., Tacoma, low gross, First Division; MARVIN C. JONES, Chief Chemist, Michigan Carton Co., Battle Creek, Mich., nearest pin, First Division; PRESTON VARNEY, Shift Superintendent, Pulp Division Weyerhaeuser Timber Company, Longview, eagle on No. 3 hole; and DON L. SHIRLEY, Manager, Link-Belt Co., Portland, eagle on No. 7 hole.

THE WINNER ... MRS. EDWARD ANDERSON of Hamilton, Ohio, took first prize in a field of 55 contestants in the TAPPI Salmon Derby with an eight-pound salmon.

(2). Screens may be maintained at same level instead of being pitched for gravity flow.
(3). Deckers and washers, etc., may be installed without dump chests.

B. Installation of new equipment in existing buildings or in new additions to operating mills.
1. Independent operation of both old and new processing equipment.
2. Changes in location of present processing equipment without alteration to buildings.
3. Utilization of valuable floor space by elimination of secondary storage chest or dump chest.
4. Tying in new operations with present operations.

C. Advantages of vertical pumps for handling stock and white water.
1. Efficient use of ground floor for main processing.
   a. Knotter screening.
   b. Flat screens.
   c. Drying machine.
2. Savings in floor space.
3. Use of available head room to save extending side walls of buildings.
4. Elimination of pump sumps to establish positive suction heads.
5. Maintaining pre-determined liquid levels for drop legs of vacuum washers, etc. This is of particular importance when the washer is located on the ground floor.
6. Elimination of operating troubles due to airbinding.
7. The total installed cost of vertical pumps is often times less than that of horizontal equipment due to savings effected in cost of construction and elimination of pipe, valves and fittings.

D. Selection of pipe and pipe sizes, and their relation to horsepower savings.
1. Material used in the fabrication of pipe and its relation to friction head.
2. Size of pipe and relation to friction head.
3. Short radius elbows vs. long radius elbows, with corresponding relation to friction head.
4. Stock valves and relationship to good operation and loss in head.
5. Relation of friction losses in pipe lines to kinds of pulp.
6. Relationship of friction losses to location of discharge line, i.e. vertical or horizontal.
7. Head loss due to separation of entrained air in pipe line.

E. Proper selection of pumping equipment with corresponding relation to power savings.
1. Pump efficiency when handling water vs. pulp.
2. Selection of pump with relationship to peak efficiency.
3. Allowance for head drop due to consistency of stock.
4. Large suction openings to permit slow velocities into eye of impeller.
5. Use of slower operating speeds to permit application of larger impeller eye areas and correspondingly larger suction openings.
6. Operation of white water pumps with relation to entrained air entering the pump with the white water.

PAPER MACHINE PROBLEMS

● Leader of this dinner discussion, R. S. Wertheimer, resident manager and secretary-treasurer, Longview Fibre Company, Longview, took a vote prior to the discussion to find the seven questions out of the list below which held the greatest interest for the greatest number of men present. Mr. Wertheimer's outline follows:

Yankee Machines

1. What is the optimum moisture content of an M.G. sheet at the marking position to secure prominence of mark and best finish?
2. Are there any advantages in predrying an M.G. sheet entirely from one side instead of from both sides?
3 Are there any advantages in placing the felt side of the sheet against the M.G. dryer compared to the conventional practice of placing the wire side against the M.G. dryer?
4. Is there any one type of M.G. dryer doctor blade that has all the following properties:
   (a) Will not scratch the dryer.
   (b) Will polish the dryer.
   (c) Will wear uniformly and not too fast.
5. Discuss the effect of pressure roll on M.G. waxing sheet.
6. Discuss the advantages based on actual operating experience of high pressure drying.

News

7. Calendar Roll Crowning

How much crown should be carried in an eight roll calendar stack carrying a total weight of 101 tons? The bottom roll is 34" diameter; the intermediate roll is 20"; and, the remaining rolls are all 18" diameter. The third and fifth rolls from the bottom are steam rolls and are or have been ground straight, without crown. The bottom roll is crowned 53/1000; the intermediate 2/1000; the fourth 3/1000; the sixth 2.5/1000; and the seventh roll has 5/1000 inch crown. All rolls are chilled cast iron with 226 inch face. The sheet bags quite noticeably going into the last nip between the bottom roll and the intermediate, and causes calender cuts when equilibrium moisture is maintained. When stack is shut down after having been run, the 53/1000 inch crown usually shows expansion to 57.5/1000 inch. Is there too much crown in this stack, and, if so, what roll is causing the bagging and calendar cuts? The machine speed is slightly over 1200 feet per minute.

8. Foam on News Machine

What causes tend to effect foaming on a Newsprint Machine where the pH

is maintained in the neighborhood of 5.0?

9. Stonite Roll on First Suction Press Roll

We have been running a 40 plastometer rubber covered roll, crowned 185/1000 inch, as top roll on a brass suction press roll crowned at 30/1000 inch, and have been having trouble with the roll picking on newsprint furnish. The top roll is 28" diameter, 238" face, and weighs 16,500 pounds. Will a Stonite roll weighing 20,500 pounds tend to eliminate this picking, and, if so, what crown would be recommended?

10. Sheet Sticks to Wire

In running light weight tissues on a Harper machine at 600 feet per minute, the sheet tends to stick to the wire and is not picked up by the felt. Increasing the weight (basis weight) or freeing-up the stock will help to eliminate the sticking, but by doing this the characteristics necessary to meet the paper specifications are destroyed. The top couch roll is set off center 15" and is rubber covered of 100 plastometer with ¼" ball. What can be done to eliminate this sticking?

11. Discussion of the optimum vacuum to carry on suction couch and press on News machines.

Waxing

12. Discuss the type of felt to use on waxing and coated papers to eliminate lairs on finished sheet.
13. What is the optimum wire mesh to use in making 10 pound Sulphite Waxing.

Cylinder Board Machines

14. What kind of equipment is best suited for cleaning stack dryers in a cylinder board machine?
15. What is the best method of binding the ends of a cylinder wire onto the mold?
16. How can raveling at edges of cylinder machine bottom felts be prevented?
17. What kind of inlet is best suited to get even distribution in a cylinder vat?
18. Will a cylinder board machine run safely with top and bottom felt leaving sheet after first press?
19. Discuss effect of cylinder mold design, with particular reference to width and number of spokes on formation at speeds in excess of 350 feet per minute.

Stock Preparation

20. Discuss the best methods of stock agitation for storage chests for
    (a) Sulphite.
    (b) Kraft.
    (c) Groundwood.
21. Discuss beater and jordan tackle on the following grades:
    (a) Kraft Wrapping and Bag.
    (b) Toweling.
    (c) Carbonizing Tissue.
    (d) Fruit Tissue.
22. Discuss kinds of pumps most satisfactory for
    (a) Machine chest.
    (b) Beater chest.
    (c) Raw stock to beaters.
23. Discuss admission of alum to the system on the following grades:
    (a) Kraft Wrapping and Bag.
    (b) Tissue.
    (c) Butcher Wrap.
    (d) Test Liner.

Tissue and Toweling

24. What methods are available for the elimination of shell marks?
25. What is the difference in moisture content of the sheet leaving a grooved couch as against a plain couch?
26. Discuss the merits of machine crepe vs. water crepe (converting operation) as to quality of product and economy of operation.
27. Discuss proper vacuum to carry on flat boxes on 9 pound Tissue.
28. Discuss and cut of screen plates for tissue.

General

29. Discussion of dual press vs. conventional press in manufacture of
    (a) Kraft Wrapping and Bag.
    (b) Light Weight Kraft.
    (c) Other grades.
30. Discussion of wire shake covering the following points:
    (a) Effect of shake on News.
    (b) Effect of shake on Kraft.
    (c) Position, amplitude and rapidity of shake related to speeds.
31. Discussion of causes of scuffing on Kraft Bag Paper.
32. Discussion of effect of pH on Wrapping and Bag stocks for elimination of foam and prevention of sticking at presses.
33. Discussion of reuse of filtrate from machine saveall.
34. Effect of size of hole, depth and angle of countersink in couch roll drilling on
    (a) Wire life.
    (b) Water removal.
    (c) Shadow marks.
35. Discussion of use of high pressure water in cleaning of suction rolls and general mill cleaning.
36. What is the preferred plastometer of wringer rolls and at what nip pressure may they be run?
37. Discussion of deckle straps vs. "no deckle device" in the operation at various speeds.

ACID PULPING AND BLEACHING

• The leader of this dinner discussion was W. Norman Kelly, Manager, Longview Mill, Pulp Division, Weyerhaeuser Timber Co., Longview. Following is the outline of the evening's discussion:

Outline:

1. **Type of wood, chip length, chip shape and relation to pulp quality.**
2. **Cooking—**
   (a) Relationship of wood to acid volume.
   (b) Wood weighing.
   (c) Circulation rates.
   (d) Indirect heater operating problems.
3. **Dirt removal—all phases**
4. **Bleaching—**
   (a) Desirable extent of chlorination.
   (b) Effect of varying alkalinity in hypochlorite bleaching stages.

A group of the ladies who took part in the Garden Tour on Wednesday, August 21st, were photographed in the gardens of Mrs. H. F. Ostrander.

Special Train Trip

THOSE who took the TAPPI Special over the Northern Pacific from Chicago to Seattle on August 16th had a grand time judging from the comments heard at the Fall Meeting in Seattle and, too, from the photographs on the opposite page which were taken by the Northern Pacific's photographer in Livingston, Montana, Ross Madden.

Leaving Chicago at 11 p.m. on August 16th they arrived in Seattle at 8 p.m. on Monday, August 19th. In the intervening time the eighty-four men and women on board enjoyed themselves to the utmost. A stop at Mandan, N. D., permitted the train guests to see an Indian ceremonial dance.

The highlight was the Sunday spent at Livingston, Montana. Arriving early, some took the side trip to Yellowstone National Park. Others visited dude ranches nearby and Marvin Jones of the Michigan Carton Company, Battle Creek, went trout fishing, hooking seven fine ones.

In the afternoon the real western rodeo was the big attraction with its broncho busting and steer roping events. Roger Egan of the Bulkley Dunton Pulp Company gave the crowd a start when he came tearing onto the field astride an Indian pony. It turned out that the pony was not a wild one so Roger had no difficulty.

In the evenings the dining car was cleared and there was singing and dancing to the music of Miss Martin's accordion. Bridge tournaments were going on almost constantly and it is rumored that several played poker one night.

Earl G. Thompson, of the Dow Chemical Company's Great Western Division, Seattle, and chairman of the Registration Committee, was east on a business trip and came back via the TAPPI special. He was joined in Livingston by H. A. "Gob" Des Marais, Pacific Coast manager, General Dyestuff Corporation, San Francisco, chairman of the reception committee and A. S. "Al" Quinn, vice president of the Stebbins Engineering Corporation, Seattle, of the reception committee. The three had the entire train registered by the time the special reached Spokane where an assistant manager of the Olympic Hotel met them with room keys. So by the time of arrival in Seattle all were registered and had their rooms assigned and keys in their pockets. This service was greatly appreciated by the Eastern guests.

R. W. Clark of St. Paul, vice president of the Northern Pacific, had his private car attached to the special and royally entertained the TAPPI members and their wives on the way to Seattle. Great praise was heard of the manner in which the Northern Pacific handled the special. Two other Northern Pacific men came along, Forrest G. Scott of Chicago, who, with William A. Geiger, chairman of the transportation committee had arranged the trip, and R. W. Millard.

"Gob" Des Marais and "Al" Quinn, as the reception committee, arranged for the guests to play golf and go sightseeing in Livingston before the rodeo in the afternoon.

TAPPI Registration

A.

O. C. Abbott, The Bristol Co., Seattle, Wash.; **Mr. and Mrs. C. E. Ackley,** Hawley Pulp & Paper Co., Oregon City, Ore.; **Mr. and Mrs. H. J. Adrian,** Consolidated Water Power & Paper Co., Stevens Point, Wis.; **Tore Ahlen,** Svenska Flaktfabriken, Stockholm, Sweden; **Olavi Aho,** Rayonier Incorporated, Grays Harbor Division, Hoquiam, Wash.; **Jerry Alcorn,** Pulp Division, Weyerhaeuser Timber Co., Everett, Wash.; **Arn S. Allen, Jr.,** Seattle Hardware Co., Seattle, Wash.; **Fred Alsop,** Van Waters & Rogers, Portland, Oregon.

Edward Anderson, Champion Paper & Fibre Co., Hamilton, Ohio; **Evald Anderson,** Western Precipitation Co., Los Angeles, Calif.; **Mr. and Mrs. Niles Anderson,** St. Regis Kraft Co., Tacoma, Wash.; **Mr. and Mrs. L. C. Anderson,** Ontario Paper Co., Thorold, Ontario; **Leslie Anderson,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Fred R. Armbruster,** Great Western Division, The Dow Chemical Co., Seattle, Wash.; **Carl Arrington,** Pulp Division, Weyerhaeuser Timber Co., Everett, Wash.; **John Ashby,** Westminster Paper Co., New Westminster, B. C.; **Mrs. Joseph Ashby,** New Westminster, British Columbia.

B

Mr. and Mrs. A. E. Bachmann, Missisquoi Corp., Sheldon Springs, Vt.; **C. L. Bachelder,** Paper Makers Chemical Division, Hercules Powder Co., Kalamazoo, Mich.; **Milton R. Bailey,** Bulkley, Dunton Pulp Co., New York City; **L. C. Baltzelle,** Pacific Indemnity Co., Seattle, Wash.; **Albert Bankus,** Crown Zellerbach Corp., San Francisco, Calif.; **Berk A. Bannan,** Western Gear Works,

Continued on page 32

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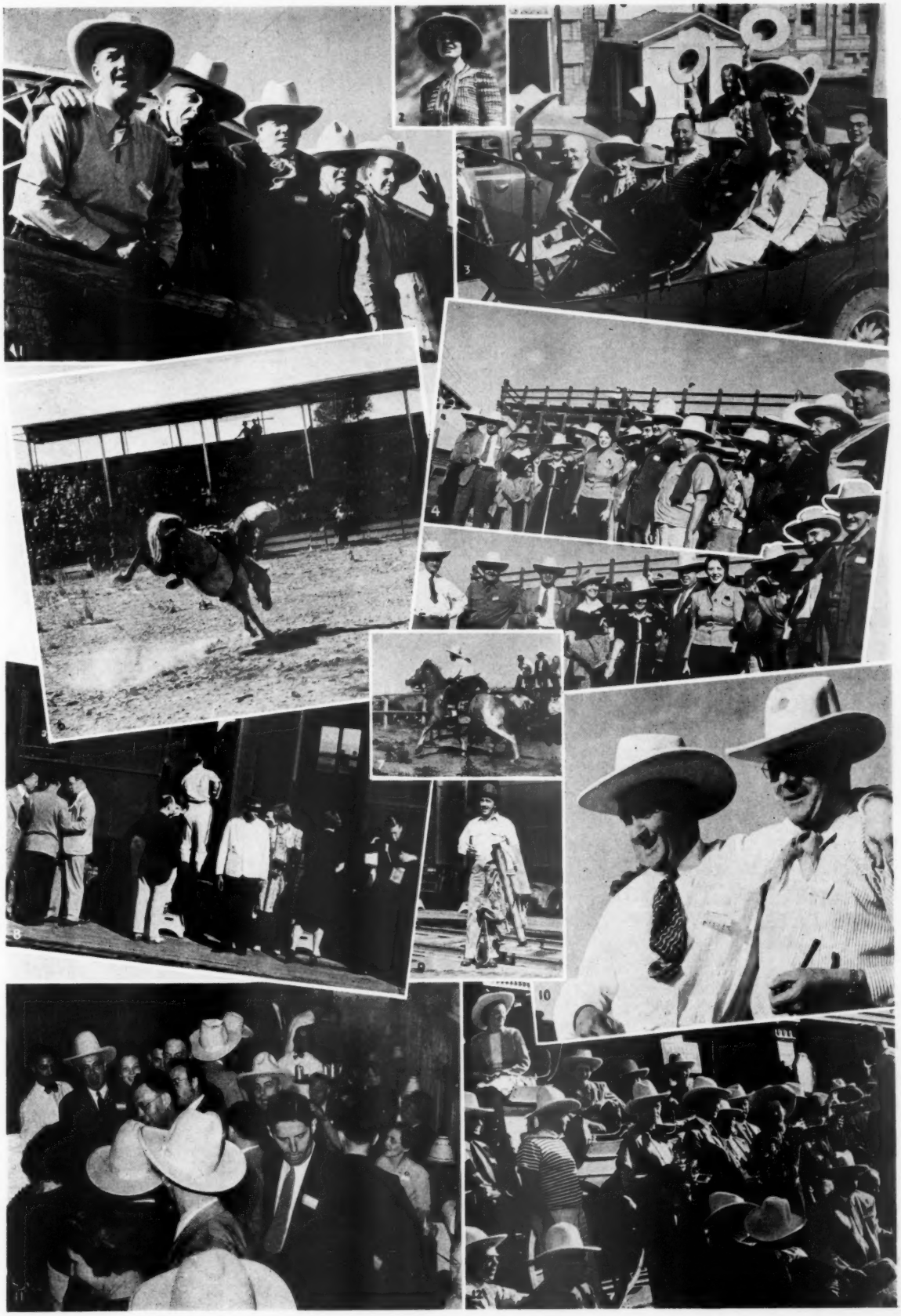
On the Other Page—

Snapshots taken by the Northern Pacific Railway's photographers on board the TAPPI Special and at Livingston, Montana, where the special stopped to visit a rodeo on August 18th.

In No. 7 is ROGER EGAN, Bulkley Dunton Pulp Co., taking an active part in the rodeo. The group of three at the left of No. 8, H. A. "GOB" Des MARAIS (on the left) Chairman of the Reception Committee and (on the right) A. S. "AL" QUINN of the Reception Committee, who met the TAPPI Special at Livingston. With his back to the camera is EARL G. THOMPSON, Chairman of the Registration Committee, who boarded the special in Chicago and with the assistance of Mr. Des Marais and Mr. Quinn registered the entire group before the special arrived in Seattle.



The Ladies Program

THE ladies attending the 1940 Fall Meeting of TAPPI in Seattle found a delightful program had been arranged for their enjoyment by Ray Smythe of Portland, chairman of the ladies entertainment committee, and the ladies who assisted him.

On Tuesday afternoon the ladies heard Miss Florenz Clark, prominent artist give a talk on commercial art and saw an exhibition of her paintings. Following her talk a fashion show was held in the auditorium of Frederick & Nelson with the latest Fall fashions being modeled before the 140 ladies present.

Wednesday the golfers and the garden enthusiasts had their day. Arrangements were made for the ladies to play at the Broadmoor Golf Club and a number took advantage of the fine course. In the afternoon a sightseeing trip took the ladies to the beautiful home of Mrs. H. F. Ostrander on the shores of Lake Washington, where they visited one of the finest gardens in the Puget Sound region. Another beautiful garden, that of Mrs. Donald G. Graham in the Broadmoor residential district, was enjoyed before tea was served at the Broadmoor clubhouse.

Mrs. Donald Denman, whose husband is vice president of the Crown Zellerbach Corporation, was hostess at the tea. Mrs. G. S. Brazeau and Mrs. Clark C. Heritage poured.

That evening, while the men were attending the dinner meetings, the ladies heard an interesting talk, "An Intimate Discussion of the Stars," by Ray Smythe, from the recently published book, "Stars Ahead," by Josephine and Ray Smythe.

Thursday was the day of the trip to Victoria, B. C., famous for its fine homes and gardens in the English style. Leaving early in the morning, the ladies enjoyed good weather on the trip through the San Juan Islands to Victoria, while the men were running into light rain on their trip into the woods.

Luncheon was served in the Empress Hotel and afterward there was a sightseeing trip through the city to Butchart's world famous gardens. Some of the ladies found shopping in the quaint shops of Victoria more interesting than sightseeing.

The return trip was largely in daylight as the ship left Victoria at 5 p.m. and arrived in Seattle at 9 p.m. Dinner was served aboard to the 83 ladies who made the trip.

It was a day of relaxation and the ladies voted the Victoria trip as a long to be remembered highlight of the program arranged for them.

Chairman Smythe had thoughtfully arranged the events so the ladies might sleep late, if they so desired, on all days except Thursday. On Friday the program did not begin until 1 o'clock when luncheon was served in the Olympic Bowl.

Afterward the ladies heard the interesting experiences of Mrs. A. G. Natwick of Camas, who was a delegate to the Republican National Convention in Philadelphia. Her talk, enlivened with anecdotes, was enjoyed by Republicans and Democrats alike.

A bridge party concluded the afternoon. Mrs. Earl G. Thompson of Seattle and Miss Phyllis Hansen of Green Bay, Wisconsin, won the door prizes.

During the four days of the meeting the ladies were pleased to find a little newspaper slipped under their doors each morning. Called "The Daily You-Hoo," the masthead said that it was edited by a Dr. Dee Bee. Investigation revealed that Ray Smythe was the editor and publisher, and that he was doing it as a little extra service to make the ladies attendance at the convention more enjoyable. The ladies' program for the day was given in detail with sidelights on what could be expected. Complimentary comments on the ladies and the events of the day before completed the little paper.

Ladies' Program Committees

● Assisting Mr. Smythe as general chairman, were the following committees of ladies:

Art Talk and Fashion Show

Chairman: Mrs. Niles Anderson, Tacoma.
Mrs. Harold Cavin, Bellingham.
Mrs. Erik Ekholm, Bellingham.
Mrs. Nils Teren, Portland.
Mrs. L. S. McCurdy, Port Townsend.
Mrs. Harlan Scott, Seattle.

Garden Tour and Tea

Chairman: Mrs. Thomas E. Moffitt, Seattle.
Mrs. W. L. Raymond, Seattle.
Mrs. G. S. Brazeau, Everett.
Mrs. Donald Denman, Seattle.
Mrs. L. S. Burdon, Everett.
Mrs. M. B. Houston, Seattle.

Victoria Trip

Chairman: Mrs. A. G. Natwick, Camas.
Mrs. R. C. Onkels, New Westminster.
Mrs. R. S. Wertheimer, Longview.
Mrs. W. Norman Kelly, Longview.
Mrs. William C. Marshall, Portland.

Bridge Luncheon

Chairman: Mrs. Fred Shaneman, Tacoma.
Mrs. Roy S. Carey, Portland.
Mrs. Lawrence Killam, Vancouver, B. C.
Mrs. George Cropper, Shelton.
Mrs. Robert Bundy, Port Angeles.
Mrs. Carl Fahlstrom, Longview.

● Mrs. James Brinkley of Seattle introduced Mr. Smythe on Wednesday evening for his talk on the stars. Mrs. Brinkley also assisted Mr. Smythe and the ladies committees in helping to arrange the program.

Seattle, Wash.; **Mr. and Mrs. T. J. Bannan,** Western Gear Works, Seattle, Wash.; **W. R. Barber,** Crown Zellerbach Corp., Camas, Wash.; **John Bardsley,** Powell River Co., Ltd., Powell River, British Columbia.

Mr. and Mrs. W. L. Barker, Improved Paper Machinery Corp., Nashua, N. H.; **E. J. Bartells,** E. J. Bartells Co., Seattle, Wash.; **D. F. Bartholet,** Fairbanks, Morse & Co., Seattle, Wash.; **Charles L. Bauer,** The Bauer Bros. Co., Springfield, Ohio; **Mr. and Mrs. Sid Baunsgard,** General Petroleum Corp., Tacoma, Wash.; **R. B. Beal,** Flox Co., Minneapolis, Minn.; **H. W. Beecher,** Consulting Engineer, Seattle, Wash.; **George Beise,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Dr. and Mrs. H. K. Benson,** University of Washington, Seattle, Wash.; **W. L. Beuschlein,** University of Washington, Seattle, Wash.

L. K. Bickell, British Columbia Pulp & Paper Co., Woodfibre, B. C.; **Mr. and Mrs. A. L. Bibbins,** Electric Steel Foundry Co., Seattle, Wash.; **Paul Billington,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Myron Black,** Inland Empire Paper Co., Millwood, Wash.; **Charles H. Black,** Seattle Hardware Co., Seattle, Wash.; **Ross Black,** Powell River Co., Ltd., Powell River, B. C.; **G. Park Boian,** American Rolling Mill Co., Portland, Ore.; **Bernard Bornstein,** The Norton Co., Worcester, Mass.; **A. E. Boss,** Columbia Alkali Corp., Barberton, Ohio.

Harry S. Bowen, Puget Sound Sheet Metal Works, Seattle, Wash.; **F. W. Brainerd,** Scott Paper Co., Chester, Pa.; **Mr. and Mrs. Carl E. Braun,** Hawley Pulp & Paper Co., Oregon City, Ore.; **Dr. F. E. Brauns,**

Continued on page 35

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The LADIES PROGRAM—

Included visits to two of the loveliest gardens in Seattle. The ladies are shown visiting the Lake Washington gardens of Mrs. H. F. Ostrander in pictures 1, 2 and 4.

Mrs. G. S. BRAZEAU, whose husband was General Chairman of the 1940 Fall Meeting of TAPPI, appears on the left in No. 3, with Mrs. JAMES BRINKLEY, who had charge of arrangements for the garden tour and tea at Broadmoor Golf Club.

Mrs. C. R. CLARK of Passiac, N. J., and Mrs. IRVING R. GARD of Seattle appear in No. 5.

A few of the ladies who attended RAY SMYTHE'S talk on Wednesday evening, are in No. 6. At the luncheon on Friday, Mrs. A. G. NATWICK of Camas, Washington, described her experiences as a delegate to the Republican National Convention, No. 7. Nos. 8 and 9 were taken at the tea Wednesday afternoon at the Broadmoor Golf Club following the garden tour.

The Institute of Paper Chemistry, Appleton, Wis.; **Paul Bray,** University of Maine, Orono, Maine; **G. W. Brown,** Pulp Division, Weyerhaeuser Timber Co., New York City; **G. J. Brabender,** Marathon Paper Mills Co., Rothschild, Wis.; **G. S. Brazeau,** Pulp Division, Weyerhaeuser Timber Co., Everett, Wash.; **W. E. Breitenbach,** Rayonier Incorporated, Hoquiam Division, Hoquiam, Wash.; **Mr. and Mrs. Martin Breuer,** E. I. Du Pont de Nemours & Co., San Francisco, Calif.

Mr. and Mrs. J. F. Brinkley, James Brinkley Co., Seattle, Wash.; **Mr. and Mrs. N. M. Brisbois,** Fibreboard Products, Inc., Stockton, Calif.; **D. Brittain,** Mead Sales Co., Chicago, Ill.; **Mr. and Mrs. E. B. Brookbank,** Mead Corp., Chillicothe, Ohio; **R. S. Buckley,** Fernstrom Paper Mills, Inc., Pomona, Calif.; **Mr. and Mrs. R. E. Bundy,** Fibreboard Products, Inc., Port Angeles, Wash.; **Leo S. Burdon,** Soundview Pulp Co., Everett, Wash.; **E. C. Burwell,** Dicalite Corp., Los Angeles, Calif.; **H. R. Bushley,** Elliott Co., Seattle, Wash.

C

A. L. Cadigan, St. Regis Kraft Co., Tacoma, Wash.; **Claude W. Callaghan,** Flox Co., Tacoma, Wash.; **Mr. and Mrs. Olin W. Callighan,** Edgar Bros. Co., Kalamazoo, Mich.; **Mr. and Mrs. R. S. Carey,** National Aniline & Chemical Co., Portland, Ore.; **G. N. Carleton,** Detroit Sulphite Pulp & Paper Co., Detroit, Mich.; **Mr. and Mrs. John M. Carlson,**

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ON THE VICTORIA TRIP—

The photographer catches RAY SMYTHE, Chairman of the Ladies Program Committee, strolling at Butchart's Gardens in Victoria.

No. 2, At the Empress Hotel in Victoria, Mrs. GEORGE H. McGREGOR (seated), Mrs. HARRY L. MARSHALL, Mrs. D. K. MacBAIN and Mrs. KENNETH B. HALL.

No. 3, left to right, Miss ADELE BANNAN, Mrs. FREDERICK J. HOFFMAN, Mrs. CHARLES BANNAN and Mrs. BERK A. BANNAN, whose husband was Chairman of the Arrangements Committee.

No. 4, Mrs. FRANK FROTHINGHAM of Chicago. No. 5, on the right, Mrs. H. A. DesMARAIS, whose husband was Chairman of the Reception Committee. No. 6, a view of Butchart's famous gardens in Victoria, B. C.

Soundview Pulp Co., Everett, Wash.; **O. S. Cauvel,** Washington Pulp & Poper Corp., Division of Crown Zellerbach Corp., Port Angeles, Wash.; **Mr. and Mrs. J. E. Cater,** Hawley Pulp & Paper Co., Oregon City, Ore.; **C. H. Champion,** R. T. Vanderbilt Co., New York City; **Dan E. Charles,** Pulp & Paper Mill Supplies, Seattle, Wash.

Mr. and Mrs. G. W. Charters, Crown Zellerbach Corp., Camas, Wash.; **Mr. and Mrs. R. E. Chase,** R. E. Chase & Co., Tacoma, Wash.; **R. E. Chase, Jr.,** R. E. Chase & Co., Portland, Ore.; **Mr. and Mrs. C. R. Clark,** Merrick Scale Mfg. Co., Passaic, N. J.; **Carlton L. Clark,** Nash Engineering Co., New York City; **Mr. and Mrs. James d'A. Clark,** Institute of Paper Chemistry, Appleton, Wis.; **Mr. and Mrs. William W. Clark, Longview Fibre Co.,** Longview Wash.; **R. W. Clark,** Northern Pacific Railroad, St. Paul, Minn.

Walter Clifford, Penick & Ford, Ltd., Cedar Rapids, Iowa; **R. B. Colby,** Coos Bay Pulp Corp., Empire, Ore.; **Mr. and Mrs. Sidney Collier,** Puget Sound Pulp & Timber Co., Bellingham, Wash.; **Mr. and Mrs. N. W. Coster,** Soundview Pulp Co., Everett, Wash.; **Mr. and Mrs. J. V. B. Cox,** Paper Makers Chemical Division, Hercules Powder Co., Portland, Ore.; **J. A. Cunningham,** Simonds Saw & Steel Co., Tacoma, Wash.; **Dr. C. E. Curran,** Forest Products Laboratory, Madison, Wis.

D

H. N. Danielsen, Simonds Saw & Steel Co., Portland, Ore.; **C. W. Davies,** Standard Oil Co., Seattle, Wash.; **J. J. Davis,** Electric Steel Foundry Co., Portland, Ore.; **Roy L. Davis,** Detroit Sulphite Pulp & Paper Co., Detroit, Mich.; **Mr. and Mrs. O. T. Defieux,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.; **C. H. Delevanti,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.; **Mr. and Mrs. V. S. Denison, Miss Ruth Denison,** Beloit Iron Works, Beloit, Wis.; **Mr. and Mrs. H. A. Des Marais,** General Dyestuff Corp., San Francisco, Calif.

Mr. and Mrs. T. E. Dial, Socony-Vacuum Oil Co., New York City; **Mr. and Mrs. G. K. Dickerman,** Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis.; **George Dickson,** Stetson-Ross Machine Co., Seattle, Wash.; **R. A. Diehm,** Rohm & Haas Co., Appleton, Wis.; **Ralph E. Drane,** St. Helens Pulp & Paper Co., St. Helens, Ore.; **Arthur C. Dreshfield,** Paper Makers Chemical Division, Hercules Powder Co., Wilmington, Del.; **E. G. Drew,** Drew & Hoffman, Portland, Ore.; **Pierre Drewsen,** Hinde & Dauch Paper Co., Sandusky, Ohio; **Mr. and Mrs. J. R. Dufford,** Paterson Parchment Paper Co., Bristol, Pa.; **Mr. and Mrs. A. C. Duncan,** Paper Makers Chemical Division, Hercules Powder Co., Portland, Ore.; **Alan C. Dunham,** Lockport Felt Co., Portland, Ore.; **George C. Dunn,** Dunn Sulphite Co., Port Huron, Mich.

E

H. E. Eash, Toledo Scale Co., Seattle, Wash.; **Roger J. Egan,** Bulkey, Dunton Pulp Co., New York City; **H. O. Ehrisman,** Foxboro Co., Foxboro, Mass.; **Mr. and Mrs. E. Ekholm,** Puget Sound Pulp & Timber Co., Bellingham, Wash.; **Mr. and Mrs. Ivar Ekholm,** National Aniline & Chemical Co., New York City; **Sigge Ekman,** Rhinelander Paper Co., Rhinelander, Wis.; **E. Ericsson,** Puget Sound Pulp & Timber Co., Bellingham, Wash.; **Art Erickson,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Mr. and Mrs. Clayton Ewing,** Falls Pulp & Paper Co., Oconto Falls, Wis.; **L. R. Ewing,** Longview Fibre Co., Longview, Wash.

F

Mr. and Mrs. Carl Fahlstrom, Longview Fibre Co., Longview, Wash.; **Frank Fieweger,** Acer & Co., Chicago, Ill.; **L. E. Fitzgerald,** Paper Makers Chemical Division, Hercules Powder Co., Kalamazoo, Mich.; **Mr. and Mrs. Francis Flinn,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.; **Mr. and Mrs. L. P. Fortier,** Everett Pulp & Paper Co., Everett, Wash.; **H. T. Fretz,** Rayonier Incorporated, Port Angeles Division, Port Angeles, Wash.; **Mr. and Mrs. Frank Frothingham,** Bird Machine Co., Chicago, Ill.

G

Mr. and Mrs. Irving R. Gard, Merrick Scale Mfg. Co., Seattle, Wash.; **William A. Geiger,** Weyerhaeuser Timber Co., Chicago, Ill.; **E. J. Gellenbeck,** Keystone Lubricating Co., Tacoma, Wash.; **O. P. Gephart,** Miamisburg Paper Co., Miamisburg, Ohio; **H. B. Gerber,** Williams-Gray Co., Chicago, Ill.; **Herman H. Gevers,** Longview, Wash.; **W. R. Gibson,** Northwest Filter Co., Seattle, Wash.

F. X. Gilg, Babcock & Wilcox Co., New York City; **W. F. Gillespie,** Gaylord Container Corp., Bogalusa, La.; **Mr. and Mrs. George A. Gladding,** Soundview Pulp Co., Everett, Wash.; **Mr. and Mrs. John H. Graff,** Institute of Paper Chemistry,

Continued on page 38

The Woods Trip

ON Thursday, August 22nd, the men and a number of the ladies attending the 1940 Fall Meeting in Seattle, turned out, 260 strong, for the woods trip to the logging operations of the Soundview Pulp Company in the foothills of the Cascade mountains northeast of Seattle. The woods trip was arranged at the invitation of U. M. Dickey, president and Leo S. Burdon, manager of the Soundview Pulp Company.

The timber holdings and logging operations chosen by Soundview for the trip were those of the company's subsidiary, the Lyman Timber Company, where big Western hemlock, Douglas fir and cedar was being logged at the time. The TAPPI group went to Hamilton, terminus of the logging railroad, in buses. Six logging flat cars, fitted up with railings and seats carried the guests into the woods. Through the courtesy of the Associated Oil Company, one of their sound trucks was put on board and Soundview's men described the trip as the train moved along.

Those who were in the Pacific Northwest's big timber for the first time found interest along the way in the forest cover peculiar to coastal Washington. The route traversed was through large Douglas fir, Western hemlock and spruce forests mixed with a large variety of broadleafed trees.

The first stop was to watch the topping of a spar tree used in high lead logging, a big tree had been limbed for a distance of 225 feet from the ground in readiness for the exhibition. As the train pulled to a stop, Al Fisher, a high-climber well known in the logging industry, started up the tree equipped with an axe, safety rope and a pair of spurs. He climbed rapidly to the 225 foot level and cut off the remaining 50 foot top amid the cheers of the crowd.

A short distance away the train stopped again for the spectators to witness the usual method of tree falling. The tree had been prepared, the undercut had been cut and part of the basal cut had been made, so it was but a matter of a few strokes with the saw for the fallers to level the big Western hemlock to earth.

By the time the train had arrived at Camp 18, the modern logging camp of the Lyman Timber Company, the need for more waterproof clothing was felt by a great many who had expected the day to be another sunny one. The hosts produced water-repellent wraps and the journey was resumed to the scene of actual logging.

The visitors saw a skidder-tractor logging combination being used to yard the logs to the railroad where they were loaded onto flat cars. A steam skidder with two steam engines yarded the logs in over 4,000 feet to the landing after the logs were skidded by a tractor equipped with an arch up to the skidder lines. This tractor was also equipped with a bulldozer for use in road making. After the logs were brought to the skidder lines by the tractor, the chokers (loops of wire rope around each log) were made fast to the main line of the skidder. This line runs through a carriage which travels on a large wire cable (skyline) strung between the spar tree at the railroad landing and another spar tree at the far end of the setting, known as a tail spar. The logs were lifted into the air to prevent hanging up on any trees on their way to the landing. Upon reaching the landing the logs were released from the chokers and were then loaded onto the cars. While the logs are being loaded, the chokers, carriage etc., are hauled back into the woods for another turn of logs.

Loading was carried out through the use of a single tong, heel boom combination. With this equipment a hooker is used for setting the tongs into a log—these are placed between the center and the end of a log so one end will rise up against the under side of the swinging boom which is girded with rail steel. After the log has come into position with one end caught against the boom, further application of power through the cable and tongs elevates the lower end of the log until it comes into a horizontal position beneath the boom. The log is spotted on the skeleton flat car by revolving the boom about the spar tree. Movements are usually possible up to 90 degrees, permitting logs to be picked from various locations with tongs and swung around to be placed onto the cars.

Direct power is supplied to the boom for swinging it one direction while a cable is attached to the other side. This is passed through a block set high in an adjacent tree with a weight hung on the end of the cable. As the power is applied to pull the boom to one side the counter-balance is lifted into the air, then when the power is cut off and the brakes released, the boom will swing back to the original position because of the pull exerted by the counter-balance.

Hemlock logs from Soundview's logging operations are manufactured into high grade bleached sulphite pulp at the rate of over 500 tons per day in the company's mill at Everett, Washington. The Douglas fir and cedar are sold on the market or bartered for other hemlock logs.

From the scene of logging operations the train backed to Camp 18 where a delicious luncheon was waiting the big crowd. Soundview's cooks had prepared an elaborate meal of barbecued white king salmon and fried chicken as the main courses. The salmon was barbecued around an open fire adjacent to the cook house and drew the interest of the visitors. This was a treat to all including most of the Pacific Coast people present and its popularity is best shown by the four to five helpings which many of the guests took before they tackled the fried chicken. In the dining room a five piece orchestra added to the enjoyment.

As the train pulled out the gang gave three cheers for Mr. Dickey, president of the Soundview Pulp Company and Mr. Burdon, manager. The side trip to the beautiful timber by Lake Grundy, another of Soundview's woods operations, was cancelled due to the inclement weather, and a number took advantage of the extra time by visiting the mill in Everett before returning to Seattle.

Aboard the "LOGGING SPECIAL"—

To transport the 260 guests from the 1940 Fall Meeting of TAPPI from Hamilton, Washington, to the heart of its logging operations, the Soundview Pulp Company built seats and railings on a number of flat cars.

In No. 1, the first bus arrives at Hamilton from Seattle. A. S. QUINN (right) of the Reception Committee and Vice President Stebbins Engineering Corp., Seattle, and H. A. DES MARAIS, Chairman, Reception Committee, and Pacific Coast Manager, General Dyestuff Corp., San Francisco (center background), greet LEO S. BURDON, Manager and N. W. COSTER, Technical Director, Soundview Pulp Co., Everett.

Nos. 2, 3, 4 and 9, the gang on board the "Soundview Logging Special."

No. 5, ED TIDLAND, Pacific Coast Supply Co., Portland, and HARRY SPECHT, Vice President & General Manager, Eastwood-Nealley Corp., Belleville, N. J., with AL HOOKER of the Hooker Electrochemical Co., Tacoma (with turned up hat), and RAY S. HATCH, Research Director, Weyerhaeuser Timber Co., Longview.

No. 6, PIERRE DREWSEN, Chemical Engineer, Hinde & Dauch Paper Company, Sandusky, Ohio, likes the Puget Sound mist. No. 7, H. A. "Gob" DES MARAIS, Chairman of the Reception Committee, tells a story to E. G. "Sid" DREW, Drew & Hoffman, Portland (center), ROGER EGAN, Bulkley Dunton Pulp Co., New York, and to AL QUINN of the Reception Committee.

No. 8, TOM C. IRWIN, Jenkins Bros. Co., Seattle; ALLAN HYER, Black-Clawson Co., Hamilton, Ohio (center), and JAMES OSBORNE, General Chemical Co., Wenatchee, Wn.

No. 10, JOHN H. BARDSLEY and ROSS BLACK of the Powell River Company, Powell River, B. C.; No. 11, On the left (background), A. McLINTOCH, Texas Gulf Sulphur Co., New York; in the foreground, IRVING R. GARD (with glasses), Pacific Northwest Representative, Merrick Scale Mfg. Co., and C. R. CLARK, General Manager, Merrick Scale Mfg. Co., Passaic, N. J.

No. 12, V. S. DENISON of the Beloit Iron Works, Beloit, Wisconsin, makes a rain helmet out of a carton. No. 13, F. T. E. SISSON, Secretary and Manager, Racquette River Paper Co., Potsdam, N. Y. No. 14, WALTER L. BARKER, President, Improved Paper Machinery Corp., Nashua, N. H., and Mrs. Barker.

The optimists wore straw hats. No. 15, F. B. SCHILLING, Manager of Sales, Industrial Division, Nichols Eng. & Research Corp., N. Y., and (center) NILES ANDERSON, General Superintendent, St. Regis Kraft Co., Tacoma. No. 16, A serious conference, left to right, J. R. DUFFORD, Chief Chemist, Paterson Parchment Paper Co., Bristol, Pa., J. J. McDONALD, Sales Technical Service, Brown Company, New York, FRED C. SHANEMAN, Vice President Pennsylvania Salt Mfg. Co. of Washington, Tacoma, and (back to camera) EARL VAN POOL, Pacific Coast Manager, Brown Company.

No. 16, HERBERT T. RANDALL, Chief Engineer, Champion Paper & Fibre Co., Hamilton, Ohio, gets ready to take a picture (background) and NELS G. JOHNSON, Assistant General Sales Manager, Simonds Worden White Co., Dayton, Ohio.


SPECIAL
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Appleton, Wis.; **Mr. and Mrs. Les T. Graham,** Link-Belt Co., Seattle, Wash.; **L. L. Griffiths,** Williams-Gray Co., Kalamazoo, Mich.; **George G. Guild,** Huntington Rubber Mills, Inc., Seattle, Wash.; **Mr. and Mrs. A. Gustin,** Rayonier Incorporated, Hoquiam Division, Hoquiam, Wash.

H

H. W. Hall, Dicalite Co., Seattle, Wash.; **Mr. and Mrs. Kenneth B. Hall,** Improved Paper Machinery Corp., Portland, Ore.; **R. N. Hammond,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **D. V. Hamilton,** Pulp Division, Weyerhaeuser Timber Co., Everett, Wash.; **Mr. and Mrs. A. B. Hansen,** Northern Paper Mills, Green Bay, Wis.; **Mr. and Mrs. John A. Hanson,** Badger Paper Mill Co., Peshtigo, Wis.; **Mr. and Mrs. Nelson Hartnagel,** Fibreboard Products, Inc., Port Angeles, Wash.; **Mr. and Mrs. Howard H. Harrison,** Crystal Tissue Co., Middletown, Ohio; **Mr. and Mrs. R. S. Hatch,** Weyerhaeuser Timber Co., Longview, Wash.; **Bert Hatton,** Johns-Manville Corp., Seattle, Wash.

A. D. Hawley, Pacific Coast Supply Co., Seattle, Wash.; **Jack Hayward,** Kalamazoo, Mich.; **R. A. Hayward,** Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.; **Ed. Heise,** Wallace & Tiernan, Inc., Seattle, Wash.; **J. W. Hemphill,** Johns-Manville Corp., New York City; **Mr. and Mrs. C. C. Heritage,** Wood Conversion Co., Cloquet, Minn.; **Mr. and Mrs. Raymond P. Hill,** Pulp Bleaching Co., Wausau, Wis.; **Mr. and Mrs. Walter S. Hodges,** Paper Clothing & Paper Rolls, Portland, Ore.; **Dr. and Mrs. W. Hirschkind,** The Dow Chemical Co., Pittsburg, Calif.; **Mr. and Mrs. Frederick J. Hoffman,** Hydraulic Supply Co., Seattle, Wash.

John Hoffman, Drew & Hoffman, Portland, Ore.; **Karl Hoffman,** Bemis Bros. Bag Co., St. Louis, Mo.; **W. F. Hoffman,** Northwest Paper Co., Cloquet, Minn.; **Clyde Holcomb,** Edison Storage Battery Supply Co., Seattle, Wash.; **J. L. Hoolihan,** Port Huron Sulphite & Paper Co., Port Huron, Mich.; **A. H. Hooker, Jr.,** Hooker Electrochemical Co., Tacoma, Wash.; **Mr. and Mrs. Harold Hauff,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **George Houghton,** U. S. Rubber Co., Seattle, Wash.

H. H. Houtz, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.; **H. J. Hotz,** Central Paper Co., Muskegon, Mich.; **O. L. Hudrlik,** Flox Co., Portland, Ore.; **C. A. Hulsart,** Babcock & Wilcox Co., New York City; **Allan Hyer,** Black Clawson Co., Middletown, Ohio; **W. F. Hynes,** General Electric Co., Portland, Ore.

I

Mr. and Mrs. E. P. Ingalls, S. D. Warren Co., Cumberland Mills, Maine; **T. C. Irwin,** Jenkins Bros. Co., Seattle, Wash.

J

Mr. and Mrs. Jerome Janecek, Inland Empire Paper Co., Millwood, Wash.; **Jack Johnson,** Appleton Woolen Mills, Portland, Ore.; **Floyd A. Johnson,** General Chemical Co., Wenatchee, Wash.; **Nels G. Johnson,** Simonds Worden White Co., Dayton, Ohio; **R. O. Johnson,** Shell Oil Co., Portland, Ore.; **R. B. Johns,** Freeport Sulphur Co., New York City; **Mr. and Mrs. M. C. Jones,** Michigan Carton Co., Battle Creek, Mich.; **Herman Jorgensen,** Pulp Division, Weyerhaeuser Timber Co.,

K

Mr. and Mrs. W. N. Kelly, Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **B. L. Kerns,** Westinghouse Electric & Mfg. Co., Seattle, Wash.; **F. G. Keuss,** St. Regis Kraft Co., Tacoma, Wash.; **Lawrence Killam,** British Columbia Pulp & Paper Co., Vancouver, B. C.; **W. W. King,** Oliver United Filters Inc., Oakland, Calif.; **J. O. Kjome,** Scientific Supplies Co., Seattle, Wash.; **Mr. and Mrs. F. P. Klund,** Hammermill Paper Co., Erie, Pa.; **Leonard P. Koepp,** United States Rubber Co., Seattle, Wash.; **Harry Kolb,** Paper Makers Chemical Division, Hercules Powder Co., San Francisco, Calif.

L

F. J. Lammers, International Filter Co., Chicago, Ill.; **Miss Edith Lash,** Longview, Wash.; **Dr. E. R. Laughlin,** E. I. Du Pont de Nemours & Co., Wilmington, Del.; **Mr. and Mrs. E. A. Lauring,** Insulite Co., International Falls, Minn.; **Ralph M. Leighton,** Stowe & Woodward Co., Newton Upper Falls, Mass.; **Foss B. Lewis,** Simonds Saw & Steel Co., Portland, Ore.; **Harry F. Lewis,** Institute of Paper Chemistry, Appleton, Wis.; **H. G. Lockerbie,** United States Rubber Co., Portland, Ore.; **Mr. and Mrs. J. G. Long,** Fir Tex Insulating Board Co., St. Helens, Ore.; **Frank J. Lovegren,** Inland Empire Paper Co., Millwood, Wash.; **Mr. and Mrs. A. H. Lundberg,** Seattle, Wash.

M

Mr. and Mrs. C. J. McAllister, Simonds Worden White Co., Portland, Ore.; **F. A. MacKay,** Coos Bay Pulp Corp., Empire, Ore.; **Dan**

Continued on page 42

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On the "WOODS TRIP"—

The visit of those attending the Fall Meeting of TAPPI to the logging operations of the Soundview Pulp Company on Thursday, August 23rd, as guests of the company, was one of the most interesting events of the convention.

In No. 1, ART FISHER, high-climber, tops a spar tree at 225 feet above the ground for the benefit of the guests. No. 2, felling a big hemlock for the visitors. Nos. 3, 4 and 6, show the big logs being loaded onto flat cars for their journey westward to Puget Sound.

The delicious barbecued White King Salmon was the highlight of the excellent lunch served by Soundview at Camp 18. Standing around the barbecue in No. 5, are, left to right, HENRY DENNIS, Logging Engineer, Lyman Timber Company, subsidiary of the Soundview Pulp Company; NORMAN ENGLISH, Wood-English Lumber Co., Vancouver, B. C.; ED SEABLOOM, Logging Superintendent, Lyman Timber Co., U. M. DICKEY, President, WALTER A. STARR, Vice President, and LEO S. BURDON, Manager, Soundview Pulp Company, Everett, Wash.

No. 7, Some of the 260 men and women going on the woods trip. No. 8, H. R. WEMPLE, Sales Manager, Texas Gulf Sulphur Co., New York, telling LEO. S. BURDON, Manager of the Soundview Pulp Co., what a fine logging camp he has, as N. W. COSTER, Soundview's Technical Director and Chairman, Pacific Section of TAPPI, looks on.

No. 9, "Soup's On!" Ed Seabloom's daughter helps out so the big crowd may be served quickly. No. 10, Those tarpaulins came in handy for the weather was a bit inclement at times. Part of the gang looking over the modern Camp 18 of the Lyman Timber Co.

No. 11, U. M. DICKEY, President, Soundview Pulp Co. (center), and on the right, B. W. SAWYER, Northwest Filter Co., Portland. No. 12, RAY S. HATCH, Research Director, Weyerhaeuser Timber Co., Longview; and Clark C. HERITAGE, Technical Director, Wood Conversion Co., Cloquet, Minn.

No. 13, Smoking after a big lunch of barbecued salmon and fried chicken, left to right, A. G. "BUFF" NATWICK, Assistant Manager, Crown Willamette Paper Co., Division Crown Zellerbach Corp., Camas; H. J. ADRIAN, Mill Manager, Consolidated Water Power & Paper Co., Stevens Point, Wisc.; and, G. K. DICKERMAN, Technical Director, Consolidated Water Power & Paper Co., Wisconsin Rapids, Wisc.

No. 14, The TAPPI group watching the salmon barbecue. The 260 guests overflowed the Camp 18 dining room so tables were set up outdoors. No. 15, Another group at Camp 18.

TAPPI Salmon Derby

"WHAT is a salmon derby?" asked a number of the men and women from the Middle West and the East when they found it on the program for Friday, August 23rd.

The salmon derby is a type of fishing contest originated on Puget Sound. All contestants start at the same time and stop at a pre-arranged time. The biggest fish or fishes win the prize or prizes.

So greatly interested were 55 men and women that they arose at 4 a.m. on Friday morning and took buses to Everett where the contest began at 6 a.m. All details had been arranged by **James Brinkley**, chairman of the entertainment committee, assisted by **George Tostevin** of the Soundview Pulp Company.

Guides were men from the Everett Pulp & Paper Company, the Soundview Pulp Company and the Pulp Division of the Weyerhaeuser Timber Company, most of them expert fishermen. Gear was furnished and the eager fishermen started off from the Everett Yacht Club docks each hopeful of winning first prize.

General chairman of the Fall Meeting, G. S. "Braz" Brazeau, was on hand to help Jim Brinkley. The fishing was in the bay off Everett and Mr. Brazeau cruised around in his trim sloop, the "Ozarb," (Brazeau backwards if you didn't get it), to take pictures, supply hot coffee and give advice on how to catch the big ones. H. Francis Jackson, backtender at Weyerhaeuser, was the official photographer on board the "Ozarb" and he was kept busy photographing fishermen and fish.

Also looking after the welfare of the fishermen with hot coffee and sandwiches, was **Anson B. Moody**, assistant secretary of the Everett Pulp & Paper Company. His cruiser, "Wanderer" kept zigzagging back and forth among the fishing craft and Mr. Moody cheered up those who felt discouraged.

At 11:30 all boats returned to the dock and it was discovered much to the chagrin of the expert male fisherman that a lady, and a lady from an inland city, had caught the largest salmon. After all the fish were checked, **Mrs. Edward Anderson** of Hamilton, Ohio, was declared the winner with an eight pound salmon. The real big ones weren't biting on Friday but many of the Easterners remained unconvinced that there were any big salmon, say 30 to 40 pounders, abroad in Puget Sound from 6 to 11:30 a.m.

At this point there was a bit of prearranged skullduggery. Jim Brinkley had secured a 25 pound salmon somewhere, probably from a nearby fish market, and all the contestants were persuaded to have their pictures taken alongside as a matter of record to show the folks back home. Some of them appear on the opposite page.

● Friday evening at the banquet the prizes were awarded. As first prize Mrs. Anderson received a beautiful water color of the Everett waterfront painted by a talented local artist, Arne Jensen.

The men broke into the prize winning column with the second largest salmon. **James d'A. Clark**, of The Institute of Paper Chemistry, Appleton, Wisconsin, took second prize and received a hand-knitted Siwash sweater which stands out even in the photograph on another page. **J. J. McDonald** of the Brown Company, New York City, took third prize and was awarded a green wool shirt of the type

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On the Water at the TAPPI Salmon Derby

No. 1, HAROLD FLORENCE, Machine Room Foreman of the Everett Mill, Pulp Division Weyerhaeuser Timber Co., served as a salmon derby guide. The two fishermen are BOB PETRIE, Pacific Coast representative for Black-Clawson, Shartle Brothers and Dilts, and NED ROOT, Dilts Machine Works, Fulton, N. Y.

No. 2, ANSON B. MOODY, Assistant Secretary, Everett Pulp & Paper Company, took his cruiser, "Wanderer," (No. 4) out to be the service station for the derbyites, supplying hot coffee to those who didn't arise in time for breakfast. No. 3, Some of the fishermen on board the "Trixter," a cruiser owned by FOSTER C. GIBSON, Northwest Manager, Edison Storage Battery Supply Co., Seattle, and piloted by CLYDE HOLCOMB of the same company. Left to right, facing the camera, CLAIRE V. SMITH, Electrical Engineer, St. Helens Pulp & Paper Co., St. Helens, Oregon; C. J. McALLISTER, NELS G. JOHNSON, Dayton, Ohio, and WALTER SALMONSON, Seattle, all with the Simonds Worden White Co.

No. 5, JAMES TUREK, JR., Stein Hall Mfg. Co., Portland, DR. T. A. PASCOE, Technical Director, Nekoosa Edwards Paper Co., Nekoosa, Wisc.; and JEROME JANECEK, Superintendent, Inland Empire Paper Co., Spokane, Wash.

No. 6, J. J. McDONALD, Brown Company, New York, and A. B. HANSEN, Executive Vice President and General Manager, Northern Paper Mills, Green Bay, Wisconsin, stop fishing for a cup of coffee on board the "Wanderer."

No. 8, H. A. "GOB" DES MARAIS, Chairman of the Reception Committee and Pacific Coast Manager, General Dyestuff Corp., seems disgusted with his lack of fishing luck. No. 9, W. F. HOFFMAN, Technical Director, Northwest Paper Co., Cloquet, Minn., and JEROME STRASSER, Stein Hall Mfg. Co., Chicago, exhibit their fish. No. 10, GEORGE C. DUNN, Secretary-Treasurer, Dunn Sulphite Paper Co., Port Huron, Mich., takes movies of the "Wanderer," and DR. CARL E. CURRAN, Chief, Section of Pulp & Paper, U. S. Forest Products Laboratory, Madison, Wisconsin, holds up a "big" one.

No. 11, THOMAS W. TOOVEY, Pennsylvania Salt Mfg. Co., Philadelphia, shows off his salmon. No. 12, "GOB" DES MARAIS in a happier mood. He caught a fish. No. 13, At the tiller of his sloop the "Ozarb," G. S. BRAZEAU, General Chairman, 1940 Fall Meeting of TAPPI, and Manager Everett Mill, Pulp Division Weyerhaeuser Timber Co.

No. 14, WALTER L. BARKER, President, Improved Paper Machinery Corp., Nashua, N. H., and Mrs. Barker. No. 15, N. L. MALCOVE, Technical Director, Northern Paper Mills, Green Bay, Wisc., holds up a good sized salmon.


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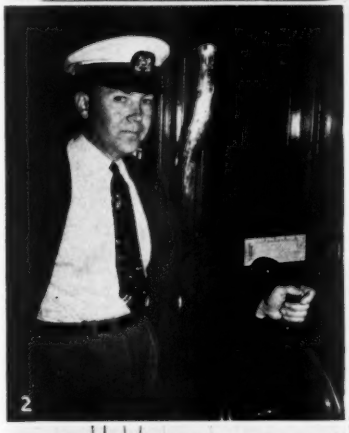
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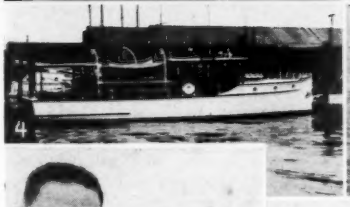
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especially designed and made for the guides at Mount Rainier.

The prize for the smallest salmon weighed in, the fourth prize, went to **O. P. Gephart,** Miamisburg Paper Company, Miamisburg, Ohio. Mr. Gephart caught nine fish. His prize was a fresh salmon to be shipped to his own home at any time he desires it.

The fifth prize was for the largest fish of a species other than salmon. **John Willy** of the American Reinforced Paper Company, Attleboro, Mass., won this prize with a two pound codfish. His prize was an enlargement of his own photograph taken with his "big" cod.

For the smallest fish of other species a walking penguin was the prize, and it was won by **N. L. Malcove** of the Northern Paper Mills, Green Bay, Wisconsin, who caught a 6 ounce sandab.

After the derby the news leaked out that Jim Brankley had borrowed the big salmon for the purposes of photography from Andy Anderson of the Everett Fish Company, who went to the trouble of rigging it up on a rack. The barge, used for fishing headquarters, was contributed by Ben Bangs of the American Tug & Barge Company of Everett, who towed it into place especially for the derby.

If it hadn't of been for the expert services of the fellows from the three Everett mills some of the fishermen might of become lost, so to them must go a great deal of credit for bringing back all the fishermen and fisherwomen alive and in good health. These men contributed their services, getting up early and going along to run the outboards just to help the salmon derby to success. Jim Brinkley and G. S. Brazeau together with all those who entered, extended their sincere appreciation to the boys.

Among the men who served as guides were the following: From the Soundview Pulp Company, **Julius Delrue, R. Berrito, Walt Bohnstedt, Gordon Irvine, N. McLaughlin, Ted Dunham, Robert Woolever, Ben Cotter, William Schmidt, Art Redland, Max Nelson and Walter Coty.**

From the Everett Pulp & Paper Company, **Lee Cea, H. K. Berger, Fred Yerian, G. A. Bielfus, James Ramsey, and Paul Smith.**

From the Everett Mill, Pulp Division, Weyerhaeuser Timber Company, **Carl Ries, B. I. Rowell, John Larson, William Kasch, R. E. Paine, Miles E. Everist, Jack Tucker, W. E. Sears, C. A. Edmonds, J. W. Juntila, E. A. Norton, L. R. Hartman, A. S. Gerry, H. C. Skipley, P. LaVelle, O. P. Yonke, Harold Griep, and Harold Florence.**

The TAPPI salmon derby will undoubtedly be the source of many tall fish stories at future TAPPI meetings and all 55 contestants have proof of the fish they caught for they have a picture of themselves with a big one, and pictures don't lie—or do they?

McGillicuddy, Jr., Rayonier Incorporated, Hoquiam Division, Hoquiam, Wash.; **A. G. Marshall,** Shell Oil Co., San Francisco, Calif.; **J. W. Martin,** Schorn Paint Mfg. Co., Seattle, Wash.; **W. Scott Matheson,** Isaacson Iron Works, Seattle, Wash.; **Peter J. Massey,** Combined Locks Paper Co., Combined Locks, Wis.; **Norman Miller,** Westinghouse Electric & Mfg. Co., Portland, Ore.; **K. M. Milligan,** Northwest Lead Co., Seattle, Wash.; **Mr. and Mrs. T. E. Moffitt,** Hooker Electrochemical Co., Tacoma, Wash.

A. B. Moody, Everett Pulp & Paper Co., Everett, Wash.; **T. H. Moran,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Mr. and Mrs. C. W. Morden,** Morden Machines Co., Portland, Ore.; **Mr. and Mrs. Douglas Morris,** James Brinkley Co., Seattle, Wash.; **Fred Mullen,** Taylorville, Ill.; **Nip Mullen,** Hopper Paper Co., Taylorville, Ill.; **C. T. Mulledy,** Rayonier Incorporated, Port Angeles Division, Port Angeles, Wash.; **Mr. and Mrs. W. A. Munro,** Flambeau Paper Co., Park Falls, Wis.; **W. C. Mumaw,** California-Oregon Power Co., Medford, Ore.

N

Mr. and Mrs. A. G. Natwick, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.; **L. F. Newton,** Electro Associates, Portland, Ore.; **F. E. Nicholson,** Stetson-Ross Machine Co., Seattle, Wash.; **Philip Nolan,** Institute of Paper Chemistry, Appleton, Wis.; **Mr. and Mrs. George H. Norris,** Hydraulic Supply Mfg. Co., Seattle, Wash.

O

Max Oberdorfer, Jr., St. Helens Pulp & Paper Co., St. Helens, Ore.; **J. J. O'Brien,** The Paper Mill, Boston, Mass.; **F. A. Olmsted,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.; **A. Orup,** Soundview Pulp Co., Everett, Wash.; **James Osborne,** General Chemical Co., Wenatchee, Wash.; **H. E. Ostenson,** Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.

P

G. V. Palmrose, Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Frederic M. Pape,** Wilson & George Meyer, Seattle, Wash.; **Mr. and Mrs. C. D. Parker,** The Fafnir Bearing Co., Seattle, Wash.; **Mr. and Mrs. T. A. Pascoe,** Nekoosa-Edwards Paper Co., Port Edwards, Wis.; **Frederic H. Peabody,** Union Screen Plate Co., Fitchburg, Mass.; **N. L. Peck,** Columbia Steel Co., Portland, Ore.; **J. W. Peckham,** Bristol Co., San Francisco, Calif.; **James Petrie,** Pacific Mills, Ltd., Ocean Falls, B. C.; **Mr. and Mrs. R. T. Petrie,** Black-Clawson Co., Portland, Ore.; **M. W. Phelps,** Solvay Process Corp., Syracuse, N. Y.; **William Pittam,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **W. T. Pritchard,** Stetson-Ross Machine Co., Seattle, Wash.

Q

A. S. Quinn, Stebbins Engineering Corp., Seattle, Wash.

R

Mr. and Mrs. Ralph Reid, Spaulding Pulp & Paper Co., Newberg, Ore.; **Lewis S. Reid,** Metropolitan Life Insurance Co., New York City; **D. F. Reynolds,** Fairbanks, Morse & Co., Seattle, Wash.; **Mr. and Mrs. G. H. Rice,** Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.; **E. D. Rich,** Oregon Pulp & Paper Co., Salem, Ore.; **H. H. Richmond,**

Continued on page 45

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The TAPPI SALMON DERBY

Here are some of the participants in the TAPPI Salmon Derby held early Friday morning, August 23rd, at Everett, Wash. They all look like winners alongside this big 25-lb. King salmon.

In No. 1, HERBERT T. RANDALL, Chief Engineer, Champion Paper & Fibre Company, Hamilton, Ohio, and G. S. BRAZEAU, General Chairman of the 1940 Fall Meeting of TAPPI in Seattle and Manager, Everett Mill, Pulp Division Weyerhaeuser Timber Co., Everett.

The "energetic" fisherman in No. 2 will remain anonymous. No. 3, C. S. BRAZEAU and JAMES d'A. CLARK, The Institute of Paper Chemistry, Appleton, Wisconsin. No. 4, FOREST W. BRAINERD, Technical Director, Scott Paper Company, Chester, Pa.

No. 5, ROBERT T. PETRIE, Pacific Coast representative for Black-Clawson, Shartle Brothers and Dilts Machine Works, Portland. No. 6, DR. D. B. MASON, Research Director, Freeport Sulphur Co., New York.

No. 7, JAMES B. SYMONDS, Sinclair Wire Co., Seattle, and HARRY M. SPECHT, Montclair, N. J. No. 8, DR. CARL E. CURRAN, Chief, Section of Pulp & Paper, U. S. Forest Products Laboratory, Madison, Wisc., and L. E. FITZGERALD, Paper Makers Chemical Division, Hercules Powder Co., Kalamazoo, Michigan.

No. 9, FRED C. SHANEMAN, Vice President, Pennsylvania Salt Mfg. Co., of Washington, Tacoma. No. 10, TED C. ROBERTS, Beloit Iron Works, Beloit, Wisconsin. No. 11, F. J. LAMMERS, International Filter Co., Chicago, Ill. No. 12, SIDNEY D. WELLS, Institute of Paper Chemistry, Appleton, Wisc.

No. 13, V. S. DENISON, Beloit Iron Works, Beloit, Wisc. No. 14, R. G. Macdonald, Secretary, TAPPI, New York.

No. 15, H. J. ADRIAN, Mill Manager, Consolidated Water Power & Paper Co., Stevens Point, Wisconsin.

No. 16, GEORGE C. DUNN, Secretary-Treasurer, Dunn Sulphite Paper Co., Port Huron, Mich. No. 17, J. R. DUFFORD, Chief Chemist, Paterson Parchment Paper Co., Bristol, Pa. No. 18, W. F. HOFFMAN, Technical Director, Northwest Paper Co., Cloquet, Minn.

TAPPI Golf Tournament

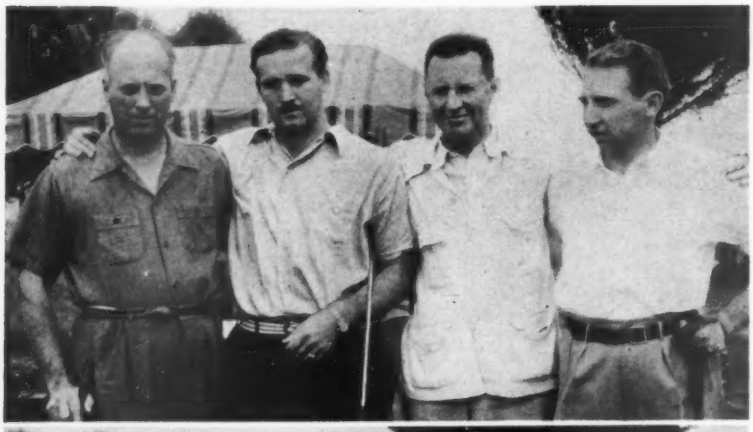
AT 1 o'clock on Friday, August 23rd, golf committee chairman Nat S. Rogers of Van Waters & Rogers, and his committee member, Ralph Dickey of the Crown Willamette Paper Company, Seattle, rounded up the contestants in the TAPPI Golf Tournament at the Rainier Golf Club.

Sixty men started out in bright sunshine and had a fine afternoon's sport. When the smoke of the contest cleared away and all the score cards had been carefully analyzed the prize winners were determined. Awards were made at the banquet that evening by Mr. Rogers.

The winners were: First Division —Low Gross, **Frank G. Kuess,** St. Regis Kraft Co., Tacoma; Low Net, **M. B. Houston,** Rayonier Incorporated, Seattle; Longest Drive, **Ralph Dickey,** Crown Willamette Paper Co., Seattle; Nearest Pin, **Marvin C. Jones,** Michigan Carton Company, Battle Creek, Mich.; Best Net on First Nine, **E. J. Bartells,** E. J. Bartells Co., Seattle and **I. J. Stafford,** Neenah Paper Co., Neenah, Wisconsin, tied; Eagles, **Don L. Shirley,** Link Belt Co., Portland, and **Preston B. Varney,** Pulp Division, Weyerhaeuser Timber Co., Longview; Greatest Effort, **Lawrence K. Smith,** Pacific Pulp & Paper Industry, Seattle.

Second Division—Low Gross, **P. J. McGuire,** Oliver United Filters, Inc., Oakland, Calif.; Low Net, **Alan C. Dunham,** Lockport Felt Co., Portland; Longest Drive, **J. M. Wilcox,** Electric Steel Foundry Co., Portland; Nearest Pin, **Everett P. Ingalls,** S. D. Warren Co., Cumberland Mills, Maine; Best Net, First Nine, **J. L. Mullen,** Hopper Paper Company, Taylorville, Ill.; Best Net, Second Nine, **DeVane Hamilton,** Pulp Division, Weyerhaeuser Timber Co., Everett.

Prizes were: for Low Gross, a blanket; Low Net, a clock; Longest Drive, fitted case; Nearest Pin, bag; for Best Net on the First and Second Nines, six balls each; for Eagles, six balls and six balls for the greatest Effort.



TAPPI Golfers—

Top picture, left to right, J. A. HANSON, Chief Chemist, Badger Paper Mills, Inc., Peshtigo, Wisc.; FRANK G. KEUSS, St. Regis Kraft Co., Tacoma; I. J. STAFFORD, Superintendent, Neenah Paper Co., Neenah, Wisc.; H. W. HALL, Dicalite Company, Seattle.

Second picture, left to right, ALBERT H. HOOKER, Jr., Western Sales Manager, Hooker Electrochemical Co., Tacoma; GEORGE H. McGREGOR, Superintendent, Pulp Division Weyerhaeuser Timber Co., Longview, Wash.; Z. A. WISE, Vice President Griffith Rubber Mills, Portland, Ore.; J. H. McCARTHY, Resident Engineer, Soundview Pulp Company, Everett, Wash.

Bottom picture, the caddies got in this one. The foursome is in the back row starting with OLIN W. CALLIGHAN (in the striped sweater), Edgar Brothers Co., Kalamazoo, Mich.; A. E. BACHMANN, Superintendent, Missisquoi Corporation, Sheldon Springs, Vermont; L. C. ANDERSON, Manager of Manufacturing, Ontario Paper Co., Thorold, Ont.; E. F. CLARK, L. H. Butcher & Co., Seattle.

Electric Steel Foundry Co., Portland, Ore.; **George J. Ritter,** Forest Products Laboratory, Madison, Wis.; **C. W. Rivise,** Caesar & Rivise, Philadelphia, Pa.

T. C. Roberts, Beloit Iron Works, Beloit, Wis.; **J. W. Robinson,** Leeds & Northrup, San Francisco, Calif.; **Nat S. Rogers,** Van Waters & Rogers, Seattle, Wash.; **Oliver E. Ronken,** Soundview Pulp Co., Everett, Wash.; **E. M. Root,** Dilts Machine Works, Fulton, N. Y.; **B. W. Rowland,** Institute of Paper Chemistry, Appleton, Wis.; **Mr. and Mrs. J. P. Rubush,** Swenson Evaporator Co., Harvey, Ill.; **J. D. Rue,** Hooker Electrochemical Co., Niagara Falls, N. Y.; **H. T. Ruff,** Mead Corp., Chillicothe, Ohio.

S

Mr. and Mrs. S. A. Salmonson, Soundview Pulp Co., Everett, Wash.; **Mr. and Mrs. N. H. Sandberg,** Waldorf Paper Products Co., St. Paul, Minn.; **B. W. Sawyer,** Northwest Filter Co., Portland, Ore.; **Mr. and Mrs. J. Scheuermann,** Cameron Machine Co., Chicago, Ill.; **M. A. Schiel,** A. O. Smith Corp., Milwaukee, Wis.; **F. B. Schilling,** Nichols Engineering & Research Corp., New York City; **A. J. Schmitz,** Allis-Chalmers Mfg. Co.,

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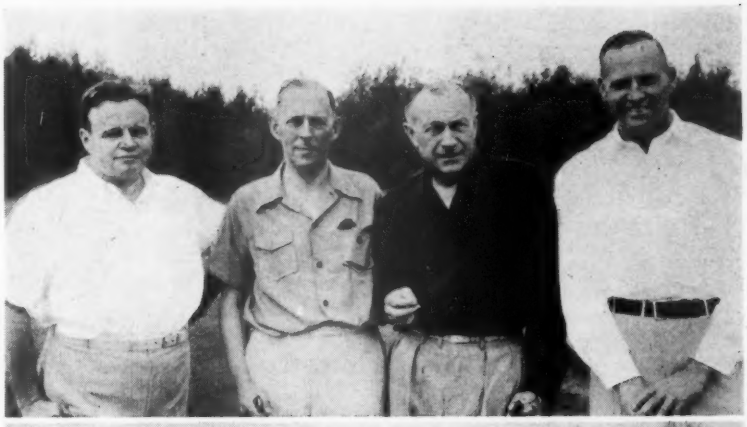
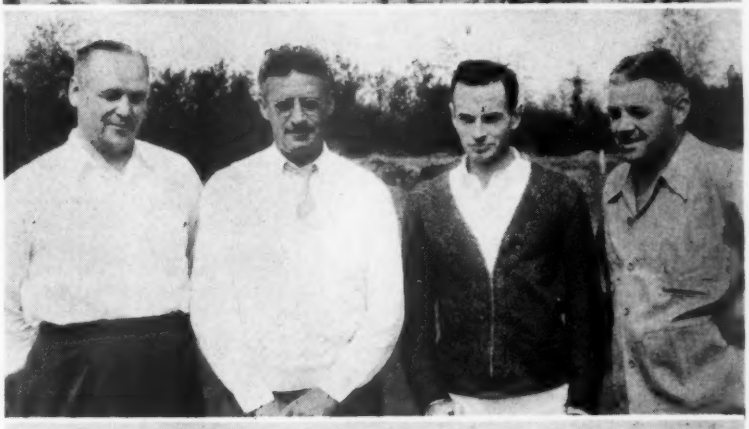




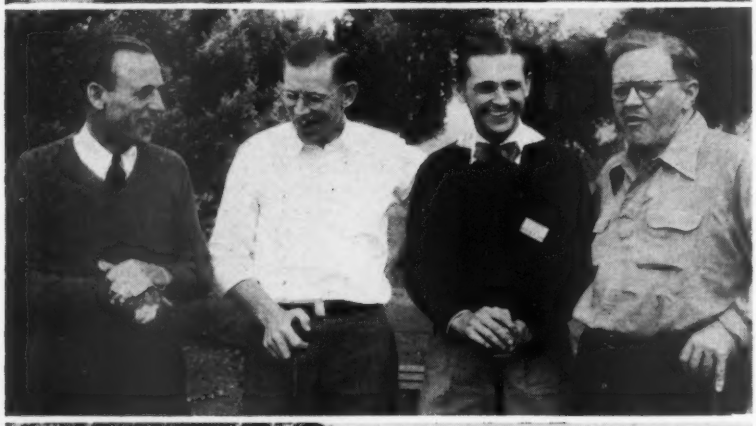
TAPPI Golfers—

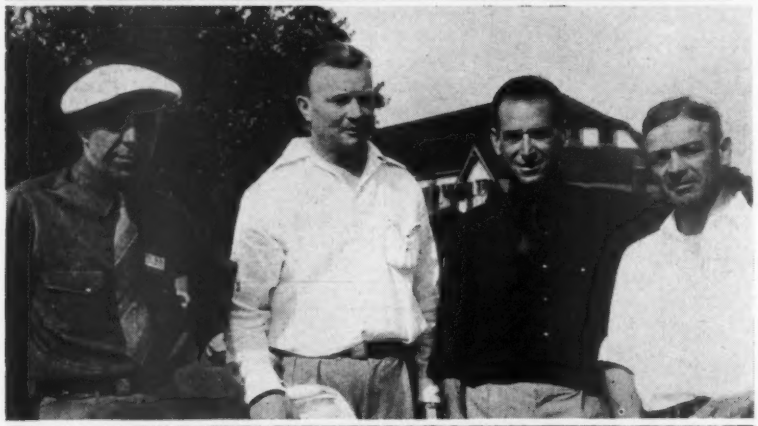
Top picture, left to right, NAT S. ROGERS, Vice President, Van Waters & Rogers, Seattle, and Chairman of the TAPPI Golf Tournament Committee; E. P. INGALLS, Production Manager, S. D. Warren Co., Cumberland Mills, Me.; M. B. HOUSTON, Rayonier Incorporated, Seattle; and, RALPH D. DICKEY, Crown Willamette Paper Co., Seattle, member of TAPPI Golf Tournament Committee.

Second picture, left to right, FLOYD A. JOHNSON, General Chemical Co., Wenatchee, Wash.; C. H. CHAMPION, R. T. Vanderbilt Co., New York, G. K. DICKERMAN, Technical Director, Consolidated Water Power & Paper Company, Wisconsin Rapids, Wisc.; and, JAMES OSBORNE, General Chemical Co., Wenatchee, Wash.

Third picture, left to right, NIP MULLINS, General Manager, Hopper Paper Company, Taylorville, Ill.; W. A. GEIGER, Pulp Division Weyerhaeuser Timber Co., Chicago; DeVANE HAMILTON, Assistant Technical Director, Pulp Division Weyerhaeuser Timber Co., Everett, Wash.; FRED MULLINS, Taylorville, Ill.

Bottom picture, left to right, VERN SAINDON, Van Waters & Rogers, Seattle; ERIK EKHOLM, General Superintendent, Puget Sound Pulp & Timber Company, Bellingham, Wash.; FRANK FROTHINGHAM, Western Manager, Bird Machine Co., Chicago; LAWRENCE K. SMITH, Manager, Pacific Pulp & Paper Industry, Seattle.





Seattle, Wash.; **George Schmidt,** Pennsylvania Salt Mfg. Co. of Washington, Tacoma, Wash.; **Forest G. Scott,** Northern Pacific Railroad, Chicago, Ill.

Mr. and Mrs. Harlan Scott, Pacific Pulp & Paper Industry, Seattle, Wash.; **Charles M. Server,** Philadelphia Felt Co., Portland, Ore.; **Mr. and Mrs. Fred Shaneman,** Pennsylvania Salt Mfg. Co. of Washington, Tacoma, Wash.; **Mr. and Mrs. Brian Shera,** Pennsylvania Salt Mfg. Co. of Washington, Tacoma, Wash.; **Joseph Shrawder,** Krebs Pigment & Color Corp., Wilmington, Del.; **D. L. Shirley,** Link-Belt Co., Portland, Ore.; **Mr. and Mrs. C. Sholdebrand,** Hawley Pulp & Paper Co., Oregon City, Ore.; **Mr. and Mrs. A. P. Siebers,** Longview Fibre Co., Longview, Wash.; **R. S. Sinclair,** Sinclair Co., Holyoke, Mass.

F. T. E. Sisson, Racquette River Paper Co., Potsdam, N. Y.; **Mr. and Mrs. C. B. Smith,** Huron Milling Co., Kalamazoo, Mich.; **C. V. Smith,** St. Helens Pulp & Paper Co., St. Helens, Ore.; **J. C. Smith,** Standard Oil Co. of Calif., San Francisco, Calif.; **Mr. and Mrs. J. F. Smith,** Dow Chemical Co., San Francisco, Calif.; **L. K. Smith,** Pacific Pulp & Paper Industry, Seattle, Wash.; **Ray Smythe,** Rice, Barton & Fales, Inc., Portland, Ore.; **Harry M. Specht,** Eastwood-Nealley Corp., Belleville, N. J.; **I. J. Stafford,** Neenah Paper Co., Neenah, Wis.

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TAPPI Golfers—

Top picture, left to right, E. A. NORTON, Electrical Engineer, Pulp Division Weyerhaeuser Timber Co., Everett, Wash.; EMIL BERGER, St. Regis Kraft Co., Tacoma; JACK JOHNSTON, St. Regis Kraft Co., Tacoma; BLAINE L. KERNS, Westinghouse Electric & Manufacturing Co., Seattle.

Second picture, left to right, ALLAN HYER, Black-Clawson Co., Hamilton, Ohio; ANTON P. SIEBERS, Paper Mill Superintendent, Longview Fibre Co., Longview, Wash.; HENRY O. EHRISMAN, Manager, Pulp and Paper Mill Division, Foxboro Company, Foxboro, Mass.; ALAN DUNHAM, Lockport Felt Co., Portland, Ore.

Third picture, left to right, FOSS B. LEWIS, Simonds Saw & Steel Co., Portland, Ore.; CARL FAHLSTROM, Assistant Resident Manager, Longview Fibre Co., Longview, Wash.; H. N. DANIELSON, Simonds Saw & Steel Co., Portland, Ore.; DON L. SHIRLEY, Manager, Link-Belt Company, Portland, Ore.

Bottom picture, left to right, JOHN G. HOFFMAN, JR., Drew & Hoffman, Portland; JACK WILCOX, Electric Steel Foundry Co., Portland; J. A. WILCOX, Longview Fibre Co., Longview, Wash.; G. PARK BOIAN, American Rolling Mill Co., Portland, Ore.

E. E. Stephens, Bumstead Woolford Co., Seattle, Wash.; **L. C. Stevenson,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **H. H. Stilwell,** Albany Felt Co., Portland, Ore.; **J. P. Strasser,** Stein Hall Mfg. Co., Chicago, Ill.; **J. B. Symonds,** Sinclair Wire Co., Seattle, Wash.; **Frank Sumner,** Sumner Iron Works, Everett, Wash.

T

Dr. H. V. Tartar, University of Washington, Seattle, Wash.; **A. Ward Tedrow,** Hawley Pulp & Paper Co., Oregon City, Ore.; **Robert I. Thieme,** Soundview Pulp Co., Everett, Wash.; **E. G. Thompson,** Great Western Division, The Dow Chemical Co., Seattle, Wash.; **E. H. Tidland,** Pacific Coast Supply Co., Portland, Ore.; **V. L. Tipka,** Hawley Pulp & Paper Co., Oregon City, Ore.; **T. W. Toovey,** Pennsylvania Salt Mfg. Co. of Washington, Tacoma, Wash.; **C. L. Triplett,** Hawley Pulp & Paper Co., Oregon City, Ore.; **R. M. True,** General Dyestuff Corp., Portland, Ore.; **Mr. and Mrs. James Turek, Jr.,** Stein Hall Mfg. Co., Portland, Ore.

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Howie Urquhart, Powell River Co., Ltd., Powell River, B. C.

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TAPPI Golfers—

Top picture, left to right, PRESTON B. VARNEY, Shift Superintendent, Pulp Division Weyerhaeuser Timber Co., Longview, Wash.; JAMES P. RUBUSH, Assistant Manager, Swenson Evaporator Co., Harvey, Ill.; P. J. McGUIRE, Western Division Sales Manager, Oliver United Filters, Inc., Oakland, Calif.; W. W. KING, Sales Engineer, Oliver United Filters, Inc., Oakland, Calif.

Second picture, left to right, J. W. HEMPHILL, Johns-Manville Sales Corp., New York; EARL VAN POOL, Pacific Coast Manager, Brown Company, San Francisco, Calif.; J. R. DUFFORD, Chief Chemist, Paterson Parchment Paper Co., Bristol, Pa.; J. J. McDONALD, Sales Technical Service, Brown Company, New York.

Third picture, left to right, ROGER EGAN, Bulkley Dunton Pulp Co., New York; RALPH SHAFFER, Vice President, Puget Sound National Bank, Tacoma, Wash.; MILTON BAILEY, Bulkley Dunton Pulp Co., Kalamazoo, Michigan; MARVIN C. JONES, Chief Chemist and Purchasing Agent, Michigan Carton Co., Battle Creek, Mich.

Bottom picture, left to right, JOSEPH SHRAWDER, Krebs Pigment & Color Corp., Wilmington, Del.; FRED ALSOP, Van Waters & Rogers, Portland, Ore.; O. T. DEFIEUX, Steam Plant Superintendent, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Camas, Wash.; E. J. BARTELLS, President, E. J. Bartells Co., Seattle.

V

Earl Van Pool, Brown Co., San Francisco, Calif.; **George Van Waters,** Van Waters & Rogers, Inc., Seattle, Wash.; **Mr. and Mrs. Preston Varney,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Mr. and Mrs. A. S. Viger,** Rayonier Incorporated, Shelton Division, Shelton, Wash.; **G. P. Vincent,** Mathieson Alkali Works, New York City; **Mr. and Mrs. H. R. Vinton,** Paper Trade Journal, Chicago, Ill.; **H. A. Vernet,** A. E. Staley Mfg. Co., Decatur, Ill.; **Miss Betty Voss,** Nekoosa-Edwards Paper Co., Port Edwards, Wis.

W

Mr. and Mrs. R. D. Waddell, Crown Willamette Paper Co., Division of Crown Zellerbach Corp., Lebanon, Ore.; **H. F. Warren,** R. E. Chase & Co., Seattle, Wash.; **L. H. Wear,** Taylor Instrument Co., Portland, Ore.; **E. A. Weber,** Oregon Pulp & Paper Co., Salem, Ore.; **C. E. Weinland,** Johns-Manville Corp., San Francisco, Calif.; **A. L. Weist,** Shell Oil Co., San Francisco, Calif.; **Fred V. Wellington,** Western Gear Works, Seattle, Wash.; **Sidney D. Wells,** Institute of Paper Chemistry, Appleton, Wis.; **H. R. Wemple,** Texas Gulf Sulphur Co., New York City.

R. S. Wertheimer, Longview Fibre Co., Longview, Wash.; **R. L. Wharton,** Titanium Pigment Corp., Seattle, Wash.; **J. E. Whitefield,** Brown Paper Mills Co., Monroe, La.; **William R. Willets,** Rayonier Incorporated, Hoquiam Division, Hoquiam, Wash.; **W. H. Williamson,** Shuler & Benninghofen, Portland, Ore.; **Mr. and Mrs. J. A. Wilcox,** Longview, Wash.

Jack Wilcox, Electric Steel Foundry Co., Portland, Ore.; **Ralph A. Wilkins,** Bird & Son, East Walpole, Mass.; **G. O. Wilson,** Dorr Co., Spokane, Wash.; **John Willy,** American Reinforced Paper Co., Attleboro, Mass.; **C. O. Witt,** Shell Oil Co., San Francisco, Calif.; **R. B. Wolf,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Edward P. Wood,** Pulp Division, Weyerhaeuser Timber Co., Longview, Wash.; **Lloyd F. Wray,** Simonds Saw & Steel Co., Seattle, Wash.

Y

H. W. Young, Paper Industry, Portland, Ore.

Z

Erik Zimmerman, Chesapeake Corp., West Point, Va.

The Committee Chairmen

A SUCCESSFUL convention like the 1940 Fall Meeting of TAPPI in Seattle, August 20-23rd, doesn't just happen. Nor is it planned in a few hours time. To those attending the wheels appear to move smoothly, the gears mesh and there is little "broke." But, as in the mill the finished production is the result of planning and hard work.

As Ralph A. Hayward, vice president of TAPPI, said, "all credit is due to those men who staged this meeting, one of the finest I have ever attended." Pacific Section Chairman N. W. Coster likewise added his praise.

The men who staged the 1940 meeting were pioneering in a way, they were planning a different type of meeting, a self-financed meeting, without a program and without exhibits, strictly a pulp, paper and board industry affair. There was a question, too, as to whether the holding of the technical program sessions at the University of Washington, four miles away from the hotel, would meet with the approval of the men attending. It did.

It all worked out successfully but extra credit is due the committee chairmen for their courage in pioneering.

General Chairman, **G. S. Brazeau,** member of the Executive Committee of TAPPI and manager of the Everett Mill, Pulp Division Weyerhaeuser Timber Company, was unstinting in his praise of the work done by the committee chairmen.

"The men who gave freely of their time and energy without thought of selfish reward deserve full credit from the industry," said Mr. Brazeau. "Without their willing assumption of responsibility the 1940 Fall Meeting could not have been staged so successfully."

In charge of arrangements was **Berk A. Bannan,** manager and secretary-treasurer of the Western Gear Works of Seattle. **Dr. H. V. Tartar,** professor of chemistry, Univery of Washington, Seattle, made all arrangements for the use of the University's facilities.

G. S. BRAZEAU, General Chairman, 1940 Fall Meeting of TAPPI

Finances were looked after by a committee of two, **M. B. Houston** of Rayonier Incorporated, Seattle, as chairman, and **Fred Shaneman,** secretary-treasurer of the Pacific Section, as the other member. Mr. Shaneman is vice president of the Pennsylvania Salt Manufacturing Company of Washington, Tacoma.

The organizing of the technical program was in charge of a committee of which **William R. Barber,** technical director of the Crown Zellerbach Corporation, was chairman. Serving with Mr. Barber were **Fred A. Olmsted,** vice chairman of the Pacific Section of TAPPI and technical supervisor, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, who took charge of the programs for the group dinner meetings; **George H. McGregor,** like Mr. Barber, a past chairman of the Pacific Section, had charge of the lignin symposium, and is superintendent, Longview Mill Pulp Division Weyerhaeuser Timber Company, Longview; **Clark C. Heritage,** past president of national TAPPI, technical director of the Wood Conversion Company, Cloquet, Minn., who arranged for the papers from the Middle West, East and South; and **Dr. H. V. Tartar,** professor of chemistry, University of Washington, member of the Executive Committee of the Pacific Section, who arranged for the University papers.

M. B. HOUSTON, Chairman, Finance Committee

Bror L. Grondal, Professor of Forest Products, College of Forestry, University of Washington, arranged the Timber Symposium.

Chairman of the registration committee was **Earl G. Thompson,** past secretary-treasurer of the Pacific Section and Pacific Northwest representative for the Great Western Division, The Dow Chemical Company, Seattle.

Arrangements for the woods trip were made by **Leo S. Burdon,** manager of the Soundview Pulp Company, Everett, Washington, a member of TAPPI.

Transportation was handled by **William A. Geiger,** Pulp Division, Weyerhaeuser Timber Company, Chicago. Mr. Geiger had complete charge of the trip by special train from Chicago to Seattle.

In charge of reception was **H. A. "Gob" Des Marais** of San Francisco, Pacific Coast manager of the General Dyestuff Corporation, and past secretary-treasurer of the Pacific Coast Division of the American Pulp and Paper Mill Superintendents Association. Serving with him was **Albert S. Quinn,** vice president of the Stebbins Engineering Corporation, Seattle, and secretary-treasurer of the Pacific Coast Division of the American Pulp and Paper Mill Superintendents Association.

The man who planned the important ladies' program was **Ray Smythe** of Portland, Pacific Coast representative for Rice, Barton & Fales, Inc. Mr. Smythe was in charge of publicity and transportation for the 1934 Fall Meeting in Portland and has been general chairman for several successful TAPPI and Superintendents meetings on the Pacific Coast.

BERK A. BANNAN, Chairman, Arrangements Committee

WILLIAM R. BARBER, Chairman, Technical Program Committee

The entertainment committee chairman was **James Brinkley,** president of the James Brinkley Company, engineers and manufacturers' representatives of Seattle. Mr. Brinkley was general chairman of the meeting of the Pacific Coast Division of the Superintendents in Seattle in December, 1938. Working with Mr. Brinkley were: **Andrew Hawley** of the Pacific Coast Supply

RAY SMYTHE, Chairman, Ladies Program Committee

LEO S. BURDON, Chairman, Woods Trip Committee

EARL G. THOMPSON, Chairman, Registration Committee

JAMES BRINKLEY, Chairman, Entertainment Committee

Company, Seattle, who arranged the dances; **Nat Rogers, of Van** Waters & Rogers, dealers in chemicals and raw materials in Seattle and Portland, as chairman of the golf committee; and **George Tostevin,** chief accountant for the Soundview Pulp Company, Everett, who had charge of the arrangements for the salmon derby. On the golf committee with Mr. Rogers was **Ralph Dickey** of the sales department, Crown Willamette Paper Company, Seattle.

In charge of publicity was **Lawrence K. Smith,** manager of Pacific Pulp and Paper Industry, Seattle. On the committee was **Roger J. Egan** of the Bulkley Dunton Pulp Co., New York, who exhibited moving pictures of the 1934 meeting in Portland before TAPPI section meetings in the Middle West and East.

Advisory Committee

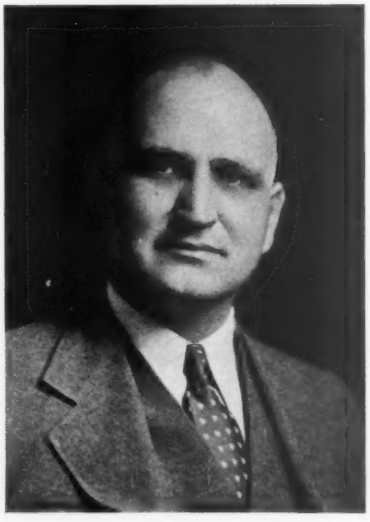
● Serving on the advisory committee were the following men: **J. D. Zellerbach,** president of the Crown Zellerbach Corporation and executive vice-president of Rayonier Incorporated and Fibreboard Products, Incorporated; **Ossian Anderson,** president of the Puget Sound Pulp & Timber Company and executive vice-president of the St. Regis Kraft Company; **Robert B. Wolf,** manager, Pulp Division Weyerhaeuser Timber Company; **U. M. Dickey,** president of the Soundview Pulp Company; **Nils G. Teren,** vice-president and manager, Columbia River Paper Mills and of the Oregon Pulp & Paper Company; **Max Oberdorfer,** president of the St. Helens Pulp & Paper Company.

R. S. Wertheimer, secretary-treasurer and resident manager of the Longview Fibre Company; **Lawrence Killam,** president of the British Columbia Pulp & Paper Company; **Chester A. Buckland,** general manager of the Inland Empire Paper Company; **Wm. J. Pilz,** vice-president and manager of the Everett Pulp & Paper Company; **Arthur Zimmerman,** manager of the Pacific Straw Paper & Board Company; **J. H. Smith,** vice-president of the

J. D. ZELLERBACH, Toastmaster, TAPPI Banquet

H. A. DES MARAIS, Chairman, Reception Committee

WILLIAM A. GEIGER, Chairman, Transportation Committee



RALPH A. HAYWARD, Vice President of TAPPI

ALBERT S. QUINN, Reception Committee

Hawley Pulp & Paper Company; K. O. Fosse, of Seattle; and, J. C. Compton, president of the Spaulding Pulp & Paper Company.

● The notebook containing the program, tickets and notebook paper was prepared by Earl G. Thompson as chairman of the Registration Committee. The book stock, note paper and the Li-Rite coil wire binding were contributed by the Everett Pulp & Paper Company. The ticket stock was contributed by the Hawley Pulp & Paper Company.

British Columbia Companies Dissolved

● Reminders of another more optimistic era in the pulp industry in British Columbia were contained in a series of notices issued by the British Columbia company registrars' department recently announcing the official dissolution of corporations formerly engaged in the industry.

Companies formally removed from the lists are Vancouver Kraft Company, which was later taken over by Port Mellon Operating Company after long litigation. President C. W. Leadbetter visited Vancouver during the past month, but announced no plans for resumption of production.

The Port Mellon company operated briefly about two years ago, but suspended operations following outbreak of the Sino-Japanse war when Japanese buyers were unable to obtain credits for purchase of pulp.

The provincial registrar announces that unless just cause is shown within two months the names of David Pulp & Paper Company and the Appleford Paper Products, Ltd., will also be eliminated from the lists of extra-provincial companies.

Velma Hart Receptionist Crown Zellerbach in Portland

Miss Velma Hart is the new switchboard operator and receptionist for the Crown Zellerbach Corporation offices in Portland, succeeding Miss Virginia Gault who was married at her parents' home in Camas on September 4th.

Roy Young Visiting Crown Zellerbach Mills

● Roy O. Young, assistant vice president of the Crown Zellerbach Corporation, San Francisco, visited Portland the first week in September.

Virginia Gault Marries Los Angeles Man

● Miss Virginia Gault, until recently switchboard operator-receptionist in the Portland office of the Crown Zellerbach Corporation, was married September 4th at the Camas home of her parents, Mr. and Mrs. Victor Gault, to Leslie J. Champion of Los Angeles, California.

Mr. Champion is affiliated with the Los Angeles office of Atkins & Lambert Co., brokers.

Mrs. Champion's father, Vic Gault, is personnel supervisor of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation at Camas, Washington.

"Heinie" Ostenson Taken by Death

● Henry E. "Heinie" Ostenson, who as paper mill superintendent of the Camas, Washington, mill of the Crown Willamette Paper Company, Division of Crown Zellerbach Corp., had hundreds of friends on the Pacific Coast, died in Seattle the morning of September 9th.

Mr. Ostenson went to Seattle to attend the 1940 Fall Meeting of TAPPI, August 20-23rd, and to visit with friends from the East. He took an active part in the Paper Machine Problems dinner discussion on the evening of August 21st. After retiring to his room he suffered a stroke and was taken to Providence Hospital. For a time his friends and family were hopeful of his recovery as Mr. Ostenson was only 50 years old.

"The flag at the Crown Willamette paper mill flew at half mast yesterday," said the Camas Post-Record on September 12th, "in tribute to a man who started to work in this mill at the age of 14 and who became one of the best authorities on the manufacture of paper in the world.

"And the half-mast flag typified the mourning of many hundred workers in the mill for Henry E. Ostenson.

"Starting to work here on June 6, 1904, Henry Ostenson worked up through the various positions in the paper mill to be boss machine tender, then he became assistant superintendent, and in 1929 he was named paper mill superintendent.

"His knowledge of the science of paper making, gained through experience and much study, made him an international authority. Many of the improvements made in the Camas plant were originated by Mr. Ostenson. His interest in the mill, his devotion to his work, have long been a legend in this community."

As a young fellow "Heinie" Ostenson was famous as a baseball player and was once offered a contract with a coast league team but turned it down in favor of papermaking.

The Reverend George L. Poor conducted the memorial services on the afternoon of September 12th. D. F. Olds and J. M. Tedford sang and the Camas Masonic lodge took charge of the graveside services. Interment was in the Camas cemetery. The pall bearers included Hugh Kennedy, J. E. Hanny, Lyall Burnett, H. S. Clark, Arthur Newcomb and Fred Stevey.

Surviving are Mrs. Ostenson; a son, Louis; a daughter, Merrie; Mr. Ostenson's mother, Mrs. Henrikka Ostenson, all of Camas; four brothers, George of Port Angeles, Sigurd of Portland, John of Camas and Gus of Washougal; and, one sister, Mrs. Josephine Crippen of Camas.

Camas Men Playing Fall Golf Tournament

● Members of the Crown Willamette Golf Association at Camas, Washington, are playing off the annual fall tournament. Four flights of 16 players each are entered in the competition.

This tournament which was started August 1, is open to all employees of Crown Zellerbach Corporation. The first elimination round was played off in three weeks; each of the remaining rounds are allotted one week's time. Final play-off was scheduled for September 12th.

Men still in the running for the fall tournament cups are:

First Flight—Cliff Odoms, John Kaminsky, Laurence Blair, Bob Russell.

Second Flight—Walt Rains, Ed Duman, Jim Buttterick, Ralph Strickler.

Third Flight—J. E. Hanney, Jim Colberg, John Horning.

Fourth Flight—Sprague Yeager, Don Konttz, C. H. Smith, Lester Schapz.

Jim Holmes of Crown Willamette Paper Company Division of Crown Zellerbach Corp., at Camas, is chairman of the tournament committee; Bruce Dobbs is president of the association. An election of officers for the coming year will be held September 12, at the conclusion of the fall tournament.

Bellingham Men Vacation

● California and the Golden Gate Exposition have claimed several of the Puget Sound Pulp & Timber Company men on their vacations.

Gordon Morseth, project chemist, and Mrs. Morseth drove down the Coast. Sidney M. Collier, shift foreman, and Mrs. Collier took in the fair and made side trips to Yosemite and Crater Lake. Joseph de Grace, sulphite cook, and his wife, also decided that the Bay region was the place for a vacation.

Tom Hutchinson, secretary of Local 194, Bellingham, visited his old home town of Calgary at round-up time. After seeing the surplus of wheat on the prairies he decided the pulp business is a better one at present than wheat farming. Mrs. Hutchinson and the two youngsters went along.

Carl Paulsen, sulphite cook for Mill "A" is a member of the championship American Legion Drum and Bugle Corp. Carl claims he developed his skill as a bugler through unusual lung capacity, the latter in turn being developed by climbing to the operating floor daily for twelve years.

Pacific Section Elects New Officers

Fred A. Olmsted elected Chairman for 1940-1941—Norman Kelly named Vice Chairman—Fred Shaneman reelected Secretary-Treasurer.

● The Pacific Section of TAPPI elected new officers to serve during 1940-1941 at a business meeting held in Bagley Hall at 4 p. m. on Wednesday afternoon, August 21st. Normally, the Pacific Section elects its officers in June at the annual joint meeting with the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association. No joint meeting was held this year in view of the National Fall Meeting of TAPPI in Seattle, August 20-23rd.

Fred A. Olmsted, who served this past year as vice chairman, was elected chairman for the ensuing year. Mr. Olmsted is technical supervisor of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington. He served on the Technical Program Committee of which W. R. Barber, technical director of the Crown Zellerbach Corporation was chairman, and arranged the five dinner meeting discussions held on Wednesday evening, August 21st.

To serve as vice chairman the Pacific Section elected W. Norman Kelly, manager, Longview Mill, Pulp Division Weyerhaeuser Timber Co., Longview, Washington. Mr. Kelly's responsibilities as vice chairman embrace the planning of the Section's six dinner meetings from October through April, and also the Pacific Section's part of the program for the joint meeting with the Superintendents in June.

FRED A. OLMSTED, Chairman, Pacific Section of TAPPI

Fred C. Shaneman was chosen to serve a second term as secretary-treasurer of the Pacific Section. Mr. Shaneman is vice president of the Pennsylvania Salt Manufacturing Company of Washington, Tacoma.

Retiring chairman, N. W. Coster, who served two terms in office, automatically became a member of the Executive Committee. Mr. Coster, technical director of the Soundview Pulp Company, Everett, Washington, was given a vote of thanks for his work as chairman, and Dr. H. V. Tartar, Department of Chemistry and Chemical Engineering, University of Washington, Seattle, was likewise thanked for his service as a member of the Executive Committee and for his work in arranging for the University's facilities to be used by the National Fall Meeting of TAPPI.

As the other member of the Pacific Section's Executive Committee for 1940-1941 the meeting chose William R. Gibson, manager, Northwest Filter Co., Seattle.

W. NORMAN KELLY, Vice Chairman, Pacific Section of TAPPI

FRED SHANEMAN, Secretary-Treasurer, Pacific Section of TAPPI

W. R. GIBSON, Executive Committee, Pacific Section of TAPPI

N. W. COSTER, Retiring Chairman, Pacific Section of TAPPI. Member Executive Committee

Francis Jackson Marries On August 24th

● The pulp and the paper jobbing business were united on August 24th when Rosalie Gerlicher of Seattle was married to H. Francis Jackson of the same city.

Mrs. Jackson was a stenographer for Blake, Moffitt & Towne, paper distributors, and her husband is a back tender for the Pulp Division, Weyerhaeuser Timber Company, Everett, Washington.

After a two weeks' honeymoon starting September 20th, which will include visits to the San Francisco Fair and to Hollywood, Mr. and Mrs. Jackson will be at home in an apartment in Everett.

Mr. Jackson was a very busy man on August 23rd and 24th. An expert amateur photographer, he was chosen to photograph the TAPPI Salmon Derby off the Everett Yacht Club the morning of August 23rd. Finishing up the picture taking by noon he started developing some ninety negatives. He was still in the darkroom hard at work when the hour for the wedding ceremony neared.

Unlike most enthusiastic amateur photographers he didn't forget the appointment with the minister but stopped long enough for the ceremony before finishing up the picture assignment.

Pacific Straw Paper Buys New Cameron Rewinder

● A new 84-inch Cameron rewinder has been ordered by the Pacific Straw Paper and Board Company of Longview, Washington, manufacturers of various grades of board.

The Cameron Machine Company of Brooklyn, N. Y., makers of the Cameron winders and rewinders is represented on the Pacific Coast by the Pacific Coast Suupply Company of Portland, Seattle and San Francisco.

Joseph Scheuerman of Chicago, sales engineer for the Cameron Machine Company was a recent visitor on the Pacific Coast, attending the TAPPI meeting in Seattle, August 20-23rd with Mrs. Scheuerman.

Japan Imported British Columbia Timber Equal to 46,500 Tons of Pulp In Past Year

● Imports of wood from British Coulmbia by two Japanese firms holding concessions, Nisso Rayon Pulp Company and the Canada Lumber Company, amounted during the fiscal year, April, 1939, to March, 1940, to 46,500,000 board feet, 95 per cent of the 48,000,000 board feet which had been anticipated, according to a report from the American Commercial Attache in Tokyo.

Of this amount 24,000,000 board feet were imported by the Canada Lumber Company on behalf of the Nokuetsu Paper Company for the manufacture of paper pulp, the remaining 22,500,000 board feet by Nisso Rayon Company, also for the manufacture of pulp.

Upon the commonly employed basis of 1,000 board feet equaling a short ton of pulp, the timber imported by Japan from concessions in British Columbia amounted to 46,500 short tons of wood pulp. The timber bought in the British Columbia open market by Japanese interests is not included in the above total.

Prospects are said to be bright for the importation during the present fiscal year of an amount of wood at least equal to that shipped during the fiscal year 1939-40. Factors favoring this import business are pointed out as follows:

1. The Japanese companies own timber concession rights.

2. In order that the concession rights may not lapse, the government will grant permits for the necessary exchange to cover all transportation expenses from Canada to Japan.

3. Pulp imports from northern Europe have ceased.

4. A policy of importing increasing quantities of logs and lumber from the United States and Canada to permit expanded pulp production in Japan is being maintained.

It is stated that the Japanese companies intend to make more intensive efforts to ship out greater quantities of timber from the concession areas. In previous years imports have included timber purchased outside the concessions. This coming year it is hoped, reports the American Commercial Attache, that all Canadian lumber imports by the two firms mentioned will originate in forest areas held by them.

Cottrell Precipitator Operating at Camas

The new Cottrell precipitator in the Camas kraft mill of the Crown Willamette Paper Company Division of Crown Zellerbach Corporation was scheduled to start the middle of September. The precipitator is located next to the kraft mill in a metal housing which was completed some time ago. This housing is 26x37½x51 feet in dimensions.

The new installation will remove ash from kraft mill gases through the use of an electrode system charged with 60,000 volts of electricity for precipitating the solids from the gases. The gases pass over a charged screen and the ash is attracted to collecting tubes, which at definitte intervals are automatically rapped to shake the solids loose in flake form. The chemical solids are returned to the kraft mill system.

Murray and Parkinson Transferred to Portland

● Miles Murray has been transferred from the San Francisco office of Crown Zellerbach Corporation to the Portland office. Myron Parkinson, also of the San Francisco office, was until recently assistant to Billy Welsh. He is now doing stenographic work in the Portland office. Each of these men is working under Otto Hartwig, Murray being his assistant.

Puget Sound Employees Hold Annual Picnic

● The annual picnic of the employees of the Puget Sound Pulp & Timber Company's Bellingham mill was held at Captain Roy's Resort on Lake Samish, Labor Day.

Some 500 attended despite the off and on weather. In the tug of war the wood room team defeated the sulphite mill team after six minutes of terrific pulling and hauling.

Mrs. James McDonald, wife of Jim McDonald of the shop crew, won the husband calling contest with a three octave crescendo.

In a hotly contested needle threading contest, in which the husband threads a needle held by his wife, the team of Mr. and Mrs. Fred Gilmore was too much for the other contestants.

The final event of the day was a softball game between a team from the cut-up plant and the sulphite mill. The sulphite men were ahead, 6 to 0, when the game was called on account of rain.

The company and Local 194 of the International Brotherhood of Pulp, Sulphite and Paper Mill Workers furnished everyone with ice cream and all the children were given candy.

In charge of the picnic was Stanley Lewis, chairman; Glen "Bud" McDonald and D. D. McMonagle. Carl Paulsen announced all the events over the public address system.

Pulp and Paper-- Can America Supply Her Own Needs?

by J. D. ZELLERBACH

President of Crown Zellerbach Corporation, who wrote under the above title as guest columnist in the San Francisco Call-Bulletin of August 22nd

● Under the above heading J. D. Zellerbach, president of the Crown Zellerbach Corporation wrote the following article on August 22nd, as guest columnist of John D. Van Becker, financial editor of the San Francisco Call-Bulletin who was on vacation.

"Trade dislocations caused by the European war are being felt in various lines of domestic industry. The paper and pulp industry is being especially affected, because under normal conditions there is a large international trade in these commodities and a close relationship between the countries producing them.

"The war has seriously interrupted exports of pulp and paper from Europe to the United States and to most other countries. This has created an unprecedented demand on American producers, which has taxed the capacities of domestic mills. One effect of this development has been to stimulate renewed interest in the question of whether or not it is necessary for the United States, at any time, to import pulp and paper from Europe.

Believe Needs Can Be Furnished

"Recent experience would appear to indicate that this country, with imports from Canada, can supply its own pulp and paper needs. Facts brought out in a recent conference between government officials and representatives of sixteen leading companies in the domestic pulp and paper industry lead to this conclusion. The adequacy of domestic supplies of important commodities is, of course, of great concern to both government and industry at the present time. Pulp and paper have wide and diversified consumer use, and their immediate availability in adequate quantity therefore is of fundamental importance.

"Domestic manufacturers have long contended that the industry on this continent has the means at hand to attain self-sufficiency from the standpoint of supply and demand. The ability of the industry to meet the abnormal demand which has marked recent months would appear to bear out this contention. In meeting these demands it has so far been unnecessary to increase manufacturing facilities, although this can be done if conditions warrant.

"The efficient use of existing plants, operating at capacity, not only has enabled producers to take care of increased business volume, but has resulted in the employment of thousands of additional workers in turning out American products for American consumption. Moreover, the disruption in imports from Europe which has brought about these conditions has permitted the resumption of so-called "marginal" domestic plants that is, productive capacity which can be profitably operated at present levels of demand and prices, but is otherwise uneconomic.

Self-Sufficiency Highly Desirable

"Having the industry geared to meet emergency conditions is, of course, highly desirable and necessary. Much better, from a long-range standpoint, would be a permanent state of self-sufficiency. This would make for more stabilized price and operating conditions, and result in a higher permanent level of employment in the industry.

"Natural conditions in certain large areas of the United States and Canada are ideal for the manufacture of pulp and paper. In the Pacific northwest, particularly, are some of the best timberlands in the world, combined with adequate water supply and power development. In the south, also, are large stands of timber which are becoming increasingly useful in pulp and paper manufacture as a result of technical developments in the industry.

"These sources of raw material supply are being increasingly protected through enlightened cutting practices, and progressive manufacturers, in cooperation with government agencies, are working towards the assurance of a continuous and adequate supply of suitable raw materials through reforestation programs. Machinery and manufacturing processes are being steadily improved with a view towards more economic utilization of raw materials and increased output of finished products. Meanwhile, the uses of pulp and paper continue to increase and their consumption continues to establish new high records."

Camas Offices Are Modernized

● The street floor of the office building of Crown Willamette Paper Co. Division of Crown Zellerbach Corporation at Camas has undergone a major renovation in the past month. Individual offices have been shifted and exchanged, the switchboard has been moved to a new room as has the teletype which is now in an insulated room adjacent to the switchboard room.

Indirect lighting has been installed in all of the street floor offices, and some of the offices are now finished with acousti-celotex on the ceilings. Three of the offices have asphalt tile floors.

Offices of J. E. Hanny, manager; George W. Charters, assistant manager; and the executive secretary have all been rebuilt.

An addition was made to the timekeeping office. Basement space is being built up for filing-room space, and the billing and order department is taking an additional room.

The offices of personnel and safety departments are finished in celotex and are illuminated by indirect lighting.

Phillips Named Shelton Personnel Supervisor

● W. C. Phillips was appointed personnel and safety supervisor of the Shelton Division of Rayonier Incorporated by George Cropper, division manager, effective September 1st.

Mr. Phillips, who succeeds Robert H. Williams recently appointed to the staff of Otto R. Hartwig, general personnel and safety supervisor for Crown Zellerbach Corporation and Rayonier Incorporated with headquarters in Portland, has been with Rayonier since August, 1933. He comes to the Shelton Division from Hoquiam where he served as assistant to John Bagwill, personnel and safety supervisor for the Grays Harbor Division.

Fred Sievers Builds New Home

● Fred Sievers of the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation ground wood mill at Camas, spent his vacation building a new home on his Washougal River property.

July Pulp Imports 7.4% Below June

● During the month of July, 1940, the total imports of wood pulp into the United States amounted to 86,426 short tons, against 93,348 short tons during the month of June, a decrease of 7.4 per cent.

Finland shipped a total of 2,067 short tons of pulp in July against 8,615 short tons in June, a decrease of 75.8 per cent. The July imports consisted of 1,529 short tons of unbleached sulphite and 538 short tons of unbleached sulphate.

No pulp was received from Norway or Sweden during the month of July.

The wood pulp shipments from Canada during July totaling 85,034 short tons were .05 per cent less than the shipments for June amounting to 84,521 short tons.

Bill Webster Assistant Manager at Brunswick

• William T. Webster, who was general superintendent of the St. Regis Kraft Company, Tacoma, Washington, from September, 1936, until January 23rd, of this year, joined the organization of the Brunswick Pulp & Paper Company, Brunswick, Georgia, on July 1st as assistant to E. J. Gayner III, vice president and general manager.

Following the severance of his connection with St. Regis Kraft Company, Mr. Webster attended the annual meeting of TAPPI in New York in February. Shortly thereafter he went to Brunswick for two months of special work. Upon the completion of his assignment on May 1st, he returned to the Pacific Coast to attend the graduation of his daughter, Jean, from Annie Wright Seminary in Tacoma.

The middle of June Mr. Webster and his daughter drove to Brunswick and Mrs. Webster joined them later, traveling by train. They are now established in their new home at 410 Union Street, Brunswick, Georgia.

While in Tacoma Mr. Webster took an active part in TAPPI affairs serving as vice-chairman of the Pacific Section in 1938. He is a chemical engineering graduate of the University of Pennsylvania. From 1915 to 1917 he was with the Burgess mill of the Brown Company. In the latter year Mr. Webster joined the Chemical Warfare Service of the Army and served until 1919. Upon his discharge he joined the Dill & Collins organization in Philadelphia as a chemist. Later be became assistant manager of the Dill & Collins Flat Rock mill.

In 1924 Mr. Webster moved to the Richmond mill of Dill & Collins as plant engineer and remained there until 1927 when he became associated with the J. O. Ross Engineering Corporation in connection with the selling and servicing of the Wagner furnaces. In August of 1936 he resigned to accept the position of general superintendent of the St. Regis Kraft Company sulphate pulp mill at Tacoma which was then being modernized and a bleach plant added, in getting it ready to resume production in the Fall of that year.

WILLIAM T. WEBSTER, Assistant Manager, Brunswick Pulp & Paper Co.

Defense Commission Surveys Pulp Situation-- Sees No Serious Shortage

• Edward R. Stettinius, Jr., in charge of the Industrial Materials Division of the National Defense Advisory Commission, announced September 3rd the results of a study of wood pulp supplies in the United States, showing that the supply of pulp in this country in 1941 will be sufficient to meet the requirements of domestic consumption and probable exports. As a result, no Government-sponsored program for building new plants or curtailing use seems necessary or desirable at present. The report was prepared because of concern over a possible wood pulp shortage due to cutting off the Scandinavian supply.

The report stated, "production of pulp by the domestic industry this year has increased sharply and may reach a record total of nearly 9,000,000 tons.

"This would almost equal consumption in 1939 and would be adequate for requirements in 1940 were it not for the increase in domestic consumption and exports. Exports from the United States this year are estimated at 400,000 tons as compared with only 140,000 tons in 1939, again due to the shutting off of European supplies. Most of these exports have been to England and Latin America. Exports of paper and paper products have also shown a sharp increase. At one period in our study shipments to foreign countries were expanding to such an extent that it seemed we might be facing a problem, but our subsequent development of facts showed that this was not serious.

"Imports from Canada have been increasing and are expected to continue at at least the present rate during the balance of the year, bringing our total imports for 1940 to an estimated 1,300,000 tons.

"The increased production of pulp by the domestic industry and the expansion in imports from Canada will in 1940, in the aggregate, more than offset the decline in shipments from Sweden, Finland and Norway.

"The elimination of Scandinavian pulp from this market, however, is causing some problems in the industry, especially among certain paper mills which make a variety of paper products and are dependent upon certain quality grades not available domestically. Until the pulp producers have developed these special grades or the paper mills dependent upon them have adapted their products to existing supplies, some difficulties will continue. The principal problems as now indicated are in the case of special grades of unbleached sulphite and sulphate.

"Another factor augmenting our supply has been the rapid increase in the use of waste paper, especially in the manufacture of shipping containers.

"Another problem in the industry has been the rapid rise in the price of pulp, which appeared when Scandinavian supplies were being curtailed, but leaders of the industry have assured Leon Henderson, commissioner in charge of the Price Stabilization Division of the National Defense Advisory Commission, that further advances in their prices for wood pulp would be made only as warranted by specific increases in costs."

Plans for Expansion

• The report concluded, "in view of the limited nature of the potential shortages, the increased production already reflected in present plant facilities, the industry's plans for further expansion, the increasing use of waste materials, the possibilities for substitution, and the possibility that a large amount of Scandinavian pulp may be released at the end of the war, no Government-sponsored program for building new plants or curtailing use seems necessary or desirable at present."

The report noted that leaders of the industry and their trade associations gave wholehearted cooperation and assisted in supplying information and appraisals of the situation not otherwise available. Various Government agencies also rendered assistance in obtaining the critical information promptly.

National Defense Angle

• The report also pointed out the importance of wood pulp to the defense program. Wood pulp may be important in the production of smokeless powder to supplement the supply of cotton linters. Large quantities of pulp and paper products will also be required to provide shipping containers for munitions and supplies; to provide material for the building program, as well as large amounts of printed matter. The volume of newsprint, magazine stock, paper cotnainers, printing paper, etc., has increased and the demand should expand further as the defense program develops.

Canadian Bread Still Wrapped Despite Tax

• Although the new processing tax on flour for human consumption in Canada places most of the increased financial load on the bakers, there has been no tendency to reduce the use of paper wrapping paper for loaves.

In Vancouver the bakers sought to compensate themselves for the increased tax by increasing the retail price of bread by half a cent per loaf, but the Canadian Wartime Price Control board issued an order compelling the bakers to revert to the old price and shoulder the tax themselves.

Many bakers suggested that one way of reducing costs would be to eliminate the use of paper wraps, but they have evidently thought better of the idea, as nearly all bread sold by the larger bakeries is still wrapped in response to growing consumer demand.

The Local Council of Women in Vancouver recently went on record as condemning the sale of unwrapped bread and urging the bakers to eliminate all selling methods that made possible the indiscriminate handling of bread, before sale to the consumer.

Smith and MacKay Operating Coos Bay Mill For Scott Paper

• Following the purchase of the unbleached sulphite pulp mill of the Coos Bay Pulp Corporation at Empire, Oregon, in June of this year by the Scott Paper Company of Chester, Pa., William S. Campbell of Chester was elected president. Mr. Campbell is a vice president of the Scott Paper Company.

To operate the mill at Empire Mr. Campbell appointed C. Wylie Smith, resident manager under the previous owners, as vice president and general manager, and retained F. A. MacKay as superintendent.

Mr. Smith has been with the Coos Bay Pulp Corporation since June, 1935, when president K. O. Fosse appointed him office manager and accountant. Mr. MacKay has served as superintendent since July, 1939.

Upon his graduation from the Everett, Washington, high school in 1925, where he specialized in chemistry, physics and mathematics, C. Wylie Smith worked for two years in the accounting department of the Puget Sound Power & Light Company in Everett. The next two years he worked for the Clough-Hartley Lumber Company of that city handling general office work. In September of 1929 Mr. Smith entered Washington State College at Pullman, taking business administration courses and majoring in accounting. His minor was in science.

C. WYLIE SMITH, Vice President and General Manager, Coos Bay Pulp Corporation.

Shortly after his graduation in 1933 he went to work for the Puget Sound Pulp & Timber Company in Everett in the accounting department. When the Anacortes Division was started up in August, 1933, Mr. Smith was appointed divisional accountant. He left Anacortes in June of 1935 to become office manager and accountant for the Coos Bay Pulp Corporation of which K. O. Fosse of Seattle was then president. He was made resident manager in March of 1937 and looked after the property during the shutdown of 1938 and 1939. He assembled the personnel and started the mill a year ago this month.

F. A. MacKAY, Superintendent, Coos Bay Pulp Corporation.

F. A. MacKay has been superintendent at Coos Bay since July of 1939, moving to Empire from Anacortes, Washington, where he was assistant to James P. V. Fagan, then general superintendent of the mill in that town. Prior to the six years he spent in Anacortes Mr. MacKay had worked for the Puget Sound Pulp & Timber Company at Everett from the time the mill started in 1930 until 1933. Before coming to the Pacific Coast Mr. MacKay had a number of years experience in plants in eastern United States and Canada. His first West Coast work was as superintendent for the Port Alice mill of the British Columbia Pulp & Paper Company, Port Alice, B. C.

To Hold Wage Hearing For Converted Paper Products

• A public hearing will be held at 10 a. m. October 10th in Conference Room B, U. S. Departmental Auditorium, Constitution Avenue between 12th and 14th Streets N. W., Washington, D. C., for the purpose of receiving evidence to be considered by Industry Committee No. 14 in determining the highest minimum wage rates for the Converted Paper Products Industry, which, having due regard to economic and competitive conditions, will not substantially curtail employment.

The term "Converted Paper Products Industry" is defined in Administrative Order No. 56, issued July 8, 1940, as follows:

"The manufacture of all products which have as a basic component, pulp, paper, or board (as those terms are used in Administrative Order No. 41 defining the Pulp and Primary Paper Industry) and the manufacture of all like products in which synthetic materials, such as cellophane, pliofilm or synthetic resin, used in sheet form is a basic component.

"Provided, however, that the manufacture of the following shall not be included:

(a) Any product the manufacture of which is covered by a wage order of the Administrator relating to the Textile, Apparel, Hat, Millinery or Shoe Industry or by an order of the Administrator appointing an industry committee for and defining the Pulp and Primary Paper, Carpet and Rug, or Luggage and Leather Goods Industry.

(b) Any products, such as rayon, cellophane, etc., made from such pulp by a process which involves the destruction of the original fibrous structure of such pulp.

(c) Wall paper, roofing paper, insulation board, shingles or lamp shades.

(d) Newspapers, magazines, books, blueprints, photographs and other products in which graphic art is the exclusive medium through which the products function, provided, however, that the production of printed forms, stationery, blank books, and tablets, other than the printing thereof in a job printing establishment, and the production of other products in the use of which graphic art is applied by the ultimate consumer of the products, shall be included within the converted paper products industry as herein defined."

The committe of 27 members, equally representative of the public, the employers, and the employees, has been called to Washington for the purpose of conducting a hearing by Wayne L. Morse, dean of the Law School of the University of Oregon, who is chairman of the committee.

Under the Fair Labor Standards Act, the committee is authorized to recommend minimum hourly wage rates between 30 and 40 cents an hour inclusively.

Of the nine members representing the public, including Dean Morse, six are identified as college professors. The Pacific Coast employers group is not represented, but for the employees the committee inculdes one Pacific Coast man, John Sherman, vice-president of the International Brotherhood of Pulp, Sulphite and Paper Mill Workers of Tacoma.

Sweden Hard Hit By Blockade

● The effect of the closing of the Baltic on Sweden's pulp and paper exports is clearly shown by the index figure recently published by the Federation of Swedish Industries.

On the basis of 1935 production as 100, the index of the activity in the Swedish pulp and paper industry in January, 1940, was 119. It fell to 115 in March, to 88 in April and 55 in May. Although detailed information is not published in the Swedish press it is reported unofficially that the sulphite pulp mills are running at about one-third of capacity and the sulphate pulp mills at two-thirds of capacity due to the demands of Germany for the latter type of pulp.

The mechanical pulp industry is inactive, as Great Britain was the sole important outlet.

Pontin and Williams to Assist Hartwig in Safety Work

● Fred Pontin, formerly with the department of labor and industry for the state of Washington, became associated with Rayonier Incorporated and Crown Zellerbach Corporation the first of September, as supervisor of safety education and will engage in first aid instruction in the Rayonier and Crown Zellerbach organizations.

While with the Washington department Mr. Pontin had charge of the first aid training work in the state of Washington.

Robert H. Williams, who has been with Rayonier Incorporated at Shelton, Washington, for the past seven years, has recently taken over the general field work in connection with safety and accident prevention for Crown Zellerbach Corporation and Rayonier Incorporated. Of the seven years Williams spent with Rayonier at Shelton, the last five were in the capacity of personnel and safety supervisor.

Both of these men will be working with headquarters at the Portland office under Otto Hartwig, general safety and social security supervisor for Crown Zellerbach Corporation and Rayonier Incorporated.

ROBERT H. WILLIAMS, In Charge Field Safety Work

Pulp Prices Unchanged For Fourth Quarter

Producers assure National Defense Advisory Commission further price advances will be made "only as warranted by specific increases in costs"—Commission's survey concludes that supply of wood pulp for 1941 will be ample for U. S. believing shortage in certain grades imminent.

● Prices for American and Canadian wood pulp in the United States market will remain unchanged at third quarter levels for the final quarter of the year according to the announcement of one leading producer, Rayonier Incorporated. Rayonier's statement was made on August 30th and as most domestic contracts contain a clause requiring producers to announce quarterly prices 30 days before the beginning of the quarter, in the absence of public announcements it was assumed third quarter prices would hold.

"There will be no increase in dissolving and paper pulp prices for the fourth quarter of the year," said Rayonier's announcement.

"All mills are operating at full capacity to supply the increasing domestic demand for both types of pulps, as well as new markets in South America and Mexico.

"While shipments to Europe are naturally restricted, Rayonier continues to supply considerable tonnage to both European and Japanese markets.

"Since paper pulps are an integral part of Rayonier's policy for a continuous domestic source of supply, intensive research is being directed to the development of new types, as well as the constant improvement of existing types."

News reports from Montreal indicated that Canadian producers were expected to follow Rayonier's lead in maintaining the third quarter prices for both dissolving and paper pulps.

Bleached sulfite pulps remained at $72.50 per short ton ex dock Atlantic ports. Unbleached sulfite pulps range in price from $63.50 to $67.50 per short ton ex dock Atlantic ports. The price of bleached soda pulp delivered to consuming mills will probably remain at $66 per short ton.

The price of bleached sulfite pulp is $11 per ton higher than in the second quarter of the present year and $12.50 above the first quarter price of $60 per short ton. Unbleached sulfite ranges from $8.50 to $12.50 per ton more than the $55 price during the second quarter of the year.

Dissolving pulps are now $5 per ton above the first quarter prices and now run from $75 per ton of 2,000 pounds air dry weight ex dock Atlantic ports to $100 for the top grades.

Jack Robertson to Talk At National Safety Meeting

● J. F. Robertson, safety supervisor for the Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, will give a talk before the Paper and Pulp Section of the National Safety Congress in Chicago, October 7th.

Mr. Robertson's talk will be on "Safe Handling of Bulk Materials—Limestone, Clay, Salt Cake, Sulphur, Etc."

Other talks to be given during the three day meeting of the Paper and Pulp Section of the National Safety Council, include, "The Safe Handling of Unit Materials—Rolls, Bales, Laps, Crates, skids, Boxes, Barrels, Bags"; "Review of the Industry's 1939-1940 Accident Experience"; "Practical Uses of Accident Cost Data in the Safety Program from the Viewpoint of the Senior Executive and from the Viewpoint of the Safety Director."

There will be reports given by special committees on Woods Operations; Paper Products Manufacturing; and, Printing and Publishing. On Wednesday afternoon, October 9th a panel discussion will be held on "Safety from Woods to Mill."

The final session on October 10th will feature the various contest awards and a talk with demonstration on "A Bag of Safety Tricks." The meeting will conclude with a Round Table Discussion on such subjects as: "Safety Contest in the Plant"; "Maintaining Plant Tidiness and Good Order"; "Accident Causes"; "Home-Made Bulletin Board Material"; and "Questions and Answers."

Recent Visitors In Southern California

● Recent visitors to the mills on Southern California included Harry H. Stilwell of the Albany Felt Company, John Fulton of the San Francisco office of the Pacific Coast Supply Company and Dave Jordan of F. C. Huyck & Sons, felt manufacturers of Albany, N. Y.

A number of eastern men attending the Fall Meeting of TAPPI in Seattle stopped off in Los Angeles on their way home. Among these were N. H. Sandburg, mill superintendent, Waldorf Paper Products Company, St. Paul, Minn.; and Ralph Wilkins, general superintendent, Bird & Son, Inc., East Walpole, Mass.

Pulp Exports Set New Record in July

● Exports of wood pulp from the United States in July set a new record, according to the Forest Products Division of the Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce.

The exports of 65,548 short tons of all grades were 58 per cent higher than in June and 488 per cent higher than the exports for July, 1939. The value of the July exports was $4,436,163.

Largest buyer of United States wood pulp in July was the United Kingdom with 35,246 short tons valued at $2,208,806. Second largest buyer was Japan who took 11,299 short tons worth $929,251. In third place was Australia with 6,788 short tons valued at $459,015.

Five South American countries, Argentina, Brazil, Chile, Columbia and Uruguay, took a total of 5,745 short tons valued at $369,872.

Exports of rayon and special chemical grades of bleached sulphite pulp totaled 14,112 tons valued at $1,181,721. Of this Japan took 10,132 tons worth $847,994, and the United Kingdom 3,951 tons valued at $331,307.

Paper bleached sulphite exports amounted to 13,274 tons valued at $947,864. The United Kingdom was the largest buyer with 8,376 tons valued at $585,733 and Australia second with 3,322 tons valued at $246,628. Unbleached sulphite exports totaled 8,025 tons worth $470,700. The United Kingdom was the chief buyer of this grade taking 2,908 tons valued at $171,458. Brazil took second place with 1,514 tons worth $85,310.

The United Kingdom took 16,812 tons of unbleached kraft pulp worth $916,092 and 2,475 tons of bleached kraft worth $153,532. Australia was the second largest buyer of unbleached kraft with 3,446 tons valued at $212,387, while Mexico was third with 1,978 tons worth $103,416 and New Zealand fourth taking 1,381 tons valued at $90,028. The second largest taker of bleached sulphate pulp was Brazil with 1,394 tons valued at $99,800. A total of 24,332 tons of unbleached kraft pulp valued at $1,367,691 was exported during July and 4,208 tons of bleached kraft worth $277,749 was exported during the same month.

Soda pulp exports totaled 751 tons and were worth $53,305 and 846 tons of screenings worth $37,133, were exported during the month.

Exports of paper and paper products in July aggregating approximately 70,000 tons, were 10 per cent higher than in June and 217 per cent higher than in July, 1939. Since the outbreak of the war paper and paperboard exports have increased steadily. Purchases by countries formerly dependent upon European sources of supply largely account for the present high rate of exports. Principal items in the July exports by volume were: paperboard, straw board and container board; kraft and other wrapping papers; newsprint; insulating and wall boards.

Exports by Customs Districts

● Of the 65,548 short tons of wood pulp exported from the United States in July the Washington Customs District shipped 21,507 short tons valued at $1,545,469. This total was made up of 8,563 short tons of rayon and special chemical grades of bleached sulphite pulp worth $719,205; 4,174 short tons of bleached sulphite pulp valued at $286,562; 4,866 short tons of unbleached sulphite valued at $292,974; 2,233 short tons of unbleached sulphate pulp valued at $125,753; and, 1,671 short tons of bleached sulphate pulp of a declared value of $120,975.

From the Florida Customs District was shipped 2,811 short tons of rayon and special chemical grades of bleached sulphite pulp valued at $234,586; 1,077 short tons of bleached sulphite pulp valued at $79,996; and, 8,889 short tons of unbleached sulphate pulp valued at $523,945.

Oregon exported 3,442 short tons of pulp in July valued at $207,329. This consisted of 1,199 short tons of bleached sulphite worth $84,398; 1,723 short tons of unbleached sulphite valued at $102,812; and, 520 tons of screenings valued at $20,119.

The Pulp Export Situation

● The move a couple of months ago by certain pulp consumers to persuade the Federal government to prohibit pulp exports appears to have been shelved. Apparently the survey conducted by the National Defense Advisory Commission which indicated no prospective shortage justifying restrictions, has caused the matter to be dropped for the time being.

It would not be good international politics at the moment to restrict exports of wood pulp. Aside from Japan, who has been a reuglar buyer of American pulps for a number of years, the new important buyers are Great Britain, Australia and the South American countries.

Export restrictions would be to the disadvantage of Great Britain and the Federal government is, as everyone knows, extremely desirous of assisting Great Britain in every way possible. Prior to the blockading of the Baltic the South American countries bought the major portion of their wood pulp from Sweden, Norway and Finalnd. Now they have only the United States and Canada left as sources of supply.

Trade in wood pulp between this country and the nations below the equator can contribute materially toward a closer commercial union greatly desired by the administration. To tell them we couldn't supply their small requirements for pulp at this time when they must buy from us, would quite naturally be considered by them as an unfriendly act.

It is wiser for us to sell what pulp friendly nations badly need to maintain their economies in these times of trade dislocations and, if necessary, further develop our own timber resources to provide a supply equal to the combined domestic and export demands.

Charles Grondona Visiting Coast Mills

● Charles A. Grondona of the New York offices of the Crown Zellerbach Corporation, was visiting the corporation's mills in the Pacific Northwest early in September.

Mr. Grondona, until his recent transfer to the New York offices, was general manager of the National Paper Products Company Division of Crown Zellerbach Corporation at Carthage, New York.

Camas Fish Screen Installation Completed

● Crown Willamette Paper Company Division of Crown Zellerbach Corporation at Camas is scheduled to have its new rotary fish screen finished by September 15th. Work on the coffer dam, excavation and concrete forms were completed early in the month.

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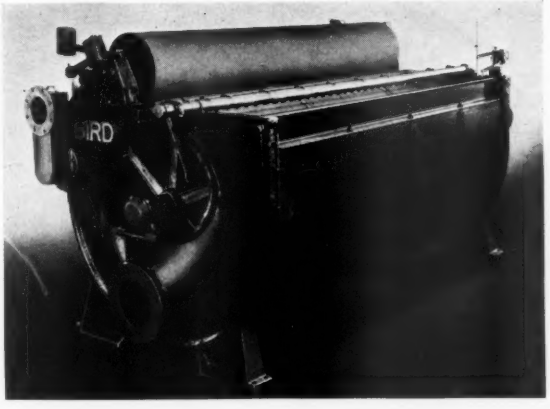

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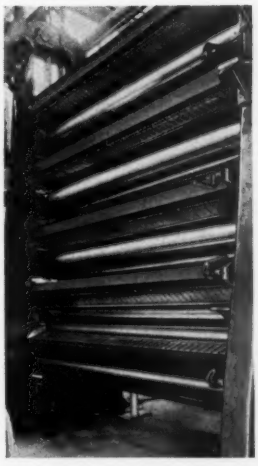

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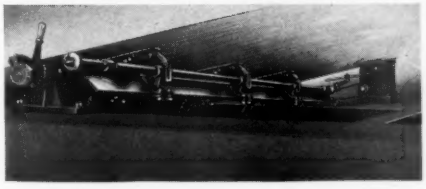

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Economic Problems in Logging And Timber Management in the Douglas Fir Region

by AXEL J. F. BRANDSTROM*

EXTENDING from California to British Columbia and from the shores of the Pacific Ocean to the crest of the Cascade Mountains lies what is known as the Douglas fir region. It embraces a territory 500 miles long and on the average about 100 miles wide, with a total land area of 35,000,000 acres. Nearly one-third, or 11,000,000 acres is covered with old growth virgin forests. Another third bears second growth forests varying from Christmas tree size to 160-year-old stands of saw timber size. The remaining one-third includes farms, pastures, town sites, barren mountain areas, burns, and non-restocked cut-over lands. More than 80 per cent of the 35,000,000 acre total is, primarily, forest land.

Within this forest region there is a total visible saw-timber supply of 520 billion feet, net log scale, representing 33 per cent of the United States grand total. This is now being cut at the rate of about 8 billion feet per annum, which represents about 33 per cent of the nation's total production.

Contrast this with the fact that we have less than 2 per cent of the country's population and you will readily appreciate the relative importance of the forests and the forest industries in the economy of the region. For a symbol of its basic resources we choose a tree. For a symbol of its industrial activities, we choose a sawmill or a plywood plant, or a pulp and paper mill. About 60 per cent of our industrial payroll comes from the forests and their dependent industries.

Regional Advantages

● Not only do we have a large regional timber supply, but we have exceptionally large trees and large volumes per acre. Trees 4 to 8 feet in diameter and over 200 feet in height are thus typical of large areas of our 300 to 800 year old virgin stands, though, generally, in such cases in mixture with smaller understudy tree. Stand volumes averaging 50,000 feet and more per acre are found over entire townships, and individual acres bearing 200,000 or more are not rare.

Then, too, we can point with pride to the quality of our virgin timber. In our plywood plants, the largest and choicest logs are peeled in long continuous sheets like paper coming off a roll of newsprint—logs with a deep layer of clear, fine grained, mellow wood. That's the cream of the crop. To the sawmills, too, go many logs of a quality and size that other regions would envy. And to the pulp mills go large quantities of hemlock, spruce and white fir, much of it to be made into high grade sulphite pulp.

Regional Disadvantages

● Against these advantages as to quantity, size and quality of our timber there are many handicaps and disadvantages which this region has to meet.

Most obvious and most important among these is the geographical location of the region as a whole in relation to the principal consuming markets which most of our forest products have to reach. In this respect, our forests are on the wrong side of the continent. Forest products and, particularly, lumber are heavy and bulky and when they have to be shipped across or around a continent it takes high quality to stand the cost.

Contributing to this initial handicap are the physical difficulties of logging in ths regon. The easy logging near the shores of bays, inlets and rivers was as a rule completed in the early days, and as the timber line receded increasing difficulties of terrain and distance were encountered. Long, steep, rocky, mountainous slopes, cut up by winding canyons, creeks and rivers, interspersed here and there with swamps, or soft creek bottoms, together with excessive rainfall, have added their share to the problem of extracting these massive logs out of a jungle of large stumps, heavy underbrush and centuries of accumulated debris. Up until the early thirties the loggers and machinery manufacturers met these problems by developing cable logging machinery of constantly increasing power and speed—first the ground lead, then the high lead, then the slackline and skidder and other forms of so-called skyline or cableway logging, with which logs of any size could be brought out, no matter where they were.

More recently the development of motor trucks, tractors, tractor-mounted donkeys and bulldozers have come into the picture and brought many radical changes in this constantly shifting scene. But, despite all these mechanical developments and despite a high degree of skill and ingenuity on the part of the loggers, the fact is that logging costs in this region, owing, to a large extent, to the physical problems involved, are as a rule, higher than in other regions.

Part of these high logging costs are due to high wages, in comparison with other regions. And, these high wages do not stop with the logging but apply also to the sawmill, plywood and pulp and paper plants and as such, affect the realization values obtainable from the standing trees.

No other forest region pays as high a wage scale as is paid here. This has worked hardships on the industry in trying to meet competition from regions with a lower wage standard and has been a particularly

Mr. Brandstrom points out the advantages and disadvantages of logging and timber management in the Pacific Northwest, explaining in detail the problem of minus-value trees.

The dividing line between plus and minus trees varies from one locality to another and no generalizations can be drawn. Selective logging cannot always be employed economically but applies where the minus-value trees have good prospects of becoming plus-value trees in the future.

*Forester, Timber Department, Crown Zellerbach Corporation, Portland, Oregon. Presented at the Fall Meeting of TAPPI, Seattle, Washington, August 20-23, 1940.

serious matter in connection with imports of foreign pulp.

Still another economic handicap is the pressure for liquidation that constantly tends toward overproduction. About half of the timber in this region is prvaitely owned. Up until 10 or 15 years ago, many private owners were willing to hold their timber, even though physically overmature or decadent, in the belief that they would profit from rising values. Today, these hopes are, in many cases, shattered and owners are anxious to liquidate—in many cases forced to do so—in order to meet annually recurring taxes, on a resource which yields no income until the harvest takes place.

Plus and Minus Value Trees

● These are the handicaps this region has to meet, handicaps that have their effect at one stage or another as we follow the value of our logs or finished forest products back to the standing tree. Trees that would have a very high value if they were growing in other parts of the world may have little or no value out here. Studies of our stand values show that trees containing peeler logs or high grade sawmill logs have, as a rule, a rather high value; others only a moderate or negligible value, while still others can be logged only at a loss. The latter are, usually, referred to as a minus-value tree, and in the plus-value trees are found in varying degree, logs—usually the top logs—that fall into the minus-value class, too.

The proportion in which these minus-value elements occur, varies greatly from one locality to another and from one type of timber to another. In some cases, the quantities involved are relatively small. In other cases, they range from 20 to 40 per cent of the total stand volume.

And, in still other cases, such as in many so-called two-story forests, they rise to fifty, sixty or seventy per cent. This is the situation as we find it in operable stands. We, also, have many unoperable stands — stands with no-plus value trees at all or with so small a percentage of plus-value that they cannot stand the cost of developing the area with roads.

Frequently, a relatively large proportion of the minus-value element consists of over-mature trees that fall into the minus-value class on account of roughness or defect. As a rule, however, it is the smaller and thriftier trees or the suppressed, under-story trees that fall into this class—partly because such trees are naturally of lower quality and partly because logging costs are higher for small logs than for large, and, particularly, so, where large high-powered steam donkeys, which are designed for efficient handling of large logs, are used for small logs, as well.

This latter situation can often be remedied to quite an extent by substituting lighter and more flexible equipment. But, in the case of cable-logging in stands containing logs of all sizes, this is not an easy thing to do.

Along this line, the Crown-Zellerbach Corporation undertook, in 1930, to first remove the large and medium sized logs with the usual heavy machinery, leaving the small logs for removal with lighter and more suitable equipment. This re-logging job was done in a most efficient manner, using tractor-mounted double-drum units and loading the logs from staked cars, in order to build up reasonably large carload volumes.

But, when the job had been done and the costs had been added up, they were found to be a good deal higher than the market value of the logs. In other words, the minus-value logs remained in the minus-value class despite the well planned and well-executed adaptations that had been made to fit the size of the logs.

Dividing Line Varies

● In connection with the logging of small trees, the question is frequently asked as to just where the line between plus and minus trees should be drawn. This is a question that cannot be answered without special study or attention to each particular case. Conditions in this region are far too variable to assume that the answer that fits one case will also fit another.

Here we find in some cases, money making operations under way in young second-growth stands, in which the trees removed range perhaps from 14 to 20 inches in diameter, while in other operations, money is lost in cutting trees in the 40 or 50 inch class. Frequently, too, we find operations that are losing money on large mature or overmature trees but making money on piling, poles and Christmas trees.

These latter cases arise through specially favorable locations, logging conditions or local market demands; or where market outlets are found for special products; or where the operator makes money by working his employes under a subnormal wage standard.

But, regardless, of whether we are dealing with operations in large timber or in medium-sized timber or in small timber, the same general rule with respect to small trees in the stand tending to fall into the minus-value class will usually be found to apply.

The existence then of a relatively large proportion of minus-value trees in our stands is a characteristic feature of this region, of the forests of this region. We have, in many cases, several times more volume per acre in this class of trees, alone, than many other regions have in their stands as a whole.

In clear cutting with high leads, slack lines or skidders, this element of the stand, except as portions of it may be unwittingly utilized at a loss, is usually destroyed because the trees that are not felled are here mowed down in the logging or killed in the subsequent slash fire; or blown down by the first severe winter storm.

Where Selective Logging Applies

● Wherever the minus-value element consists of badly suppressed or deformed trees or of highly defective trees, intermingled with a lot of culls, this destruction is good riddance—something we should seek to accomplish, wherever we can. But in cases where the minus-value element consists of good thrifty trees or trees of any species, size or age, which, though of minus-value today, have good prospects of rising to the plus-value class in the future. It is a destruction we should seek to avoid, wherever it is practicable to do so. These are conditions that are being encountered to an increasing extent as the logging operations move to higher elevations where the stands contain increasingly large proportions of pulp wood species.

It is in stands of this type that selective cutting most forcefully comes into the picture, as a practical means for saving potentially valuable timber that would otherwise be destroyed.

A couple of weeks ago, I visited an operation where selective cutting with tractors, drum units and donkeys began only a few years ago. On this operation, some 30 miles of railroad spurs are now lined with virtually unbroken walls of timber that probably no man-made forest, starting with bare land could hope to equal in less than a century or so. They are stands averaging about 40,000 feet per acre which were left after removal of probably about 95 per cent of the present plus-values of the stand. About 600 million feet of selective logged timber, which includes intermingled, unoperable

areas that were not touched at all, now stands there with a permanent road system in place ready for recurring selective cuts as future conditions may warrant.

Had this area been clear cut in the usual manner, most of this timber would have been destroyed or in part, utilized at a loss. As matters now stand, the leaving of this timber represents a direct monetary saving to the operator and, in addition, a potential future value of huge proportions. These are things that should make everyone stop and ponder and examine his own situation in the light of the selective cutting methods that have been developed in recent years.

No Generalizations Hold

From this illustration, however, we should draw no generalized conclusion that selective cutting, which removes all or nearly all the plus-value timber is the solution of everybody's logging and timber management problem. There are many stands where cutting to this particular value standard would leave nothing but a few inferior or decadent trees. This kind of heavy selection often leaves the ground in less desirable condition than if the area had been logged clean. Examples of this type of cutting, can be observed along many of our highways and have given rise to considerable criticism of the logging methods used by the industry.

Not Comparable to European Situation

● One fact that should be recognized is that in these heavy Pacific Coast forests, with their comparatively low value trees, logging is, invariably, accompanied by a great deal of waste. Under clear cutting, in particular, this waste sometimes reaches huge proportions. Severe criticism is frequently heard implying that the lumber industry should be forced to utilize some,-or all this waste material. Such criticism often comes from people who have been in Europe, and found that over there practically the entire tree, no matter what size, is utilized.

This is, particularly, true of Central Europe. There the portions of the tree that do not go to sawmills or plywood plants, etc., are cut into pulpwood; and the smallest tips are cut into fuel wood. And, after these operations are completed, the local peasants come into the forest and pick up the faggots which they carry home for fuel. This is complete utilization, rivaling the standards set by the meat packing industry of this country. But, if we begin to think in terms of European standards in forest utilization, we should also, I believe, give a little thought to their standards of utilization with respect to food and other agricultural products.

I happen to know what those standards are, because I was born and raised in Europe. When I, as a youngster, reached into the barrel of winter apples and drew out a badly rotted apple, I did not throw it into the garbage can—not if there was any sound meat to salvage from that apple, but I carefully cut out the sound portion and only the actually rotten part went into the garbage pail.

These are the standards of food utilization which are practiced throughout Europe. People over there don't waste anything that is tassty or edible. Their garbage cans are empty, except for decayed materials, waste paper and such. Over here, we don't eat culled apples; we don't even feed them to the hogs. But if we go out in the apple orchards in this region, we find tons and tons of good sound apples rotten on the ground. But, this waste does not keep us from eating apples. We eat as many as we want, and we eat the best.

Would anyone claim that the European standard of apple utilization should also be applied out here? Aren't we, under our splendid standards of living, better off by eating only the good apples, as long as we can continue to produce all the sound high quality apples we can eat? And, aren't the hogs better off, too.

By this reference to our forest utilization problem, I am not implying that we should waste anything that has a value. What I am saying is that as far as the Pacific Coast is concerned, there is no present justification for thinking in terms of European standards of waste utilization.

Closer utilization of our logging waste, I believe, should come only to the extent that we find profitable use for it, and it is in finding profitable uses for material of this kind that you gentlemen, who are here to discuss the progress and research in the chemistry and manufacture of pulp and wood fiber products have a wide open field. It is on research along these lines that we laymen pin our hope for closer utilization of our Pacific Coast trees.

British Columbia Working On Forest Fire Problem

● More forest fires have occurred in British Columbia this year than in many seasons, but few of them have been seriously destructive. Damage to important pulpwood stands has not been great.

Meanwhile the British Columbia forest service is working on a new and scientific approach to the problem of forest fire protection. The service is mobilizing for a "five-year forest plan" with the cooperation of ranger and lookout stations.

The forest officials are making a study of the occurrence of fires, the conditions that encourage their spread, the types of "fuel" in the woods and other factors.

The Kootenay district is being made a sort of "guinea pig" for the series of experiments made by a group of University of British Columbia undergraduates supervised by Ian McQueen. They are collecting data on the number and frequency of fires in a forest area; location of these fires in relation to forest lookouts, types of forest fuel in each area and general year-round fire hazards.

When this information is gathered and co-related, forest officials will be in a better position to mobilize their forces to best possible advantage. In the past it has been the policy of the service to meet each emergency as it arises. Under the new plan the officials hope to "outguess" the fire and be ready for it when it breaks; better still, make the break impossible.

Our Pacific Coast situation is not comparable to the forestry situation in Europe, states Mr. Brandstrom, as American standards of utilizaion are different in all agricultural products.

"As far as the Pacific Coast is concerned," says Mr. Brandstrom, "there is no present justification for thinking in terms of European standards of waste utilization."

"Closer utilization of our logging waste, I believe, should come only to the extent that we find profitable use for it, and it is in finding profitable uses for material of this kind that you gentlemen, who are here to discuss the progress and research in the chemistry and manufacture of pulp and wood fiber products have a wide open field. It is on research along these lines that we laymen pin our hope for closer utilization of our Pacific Coast trees."

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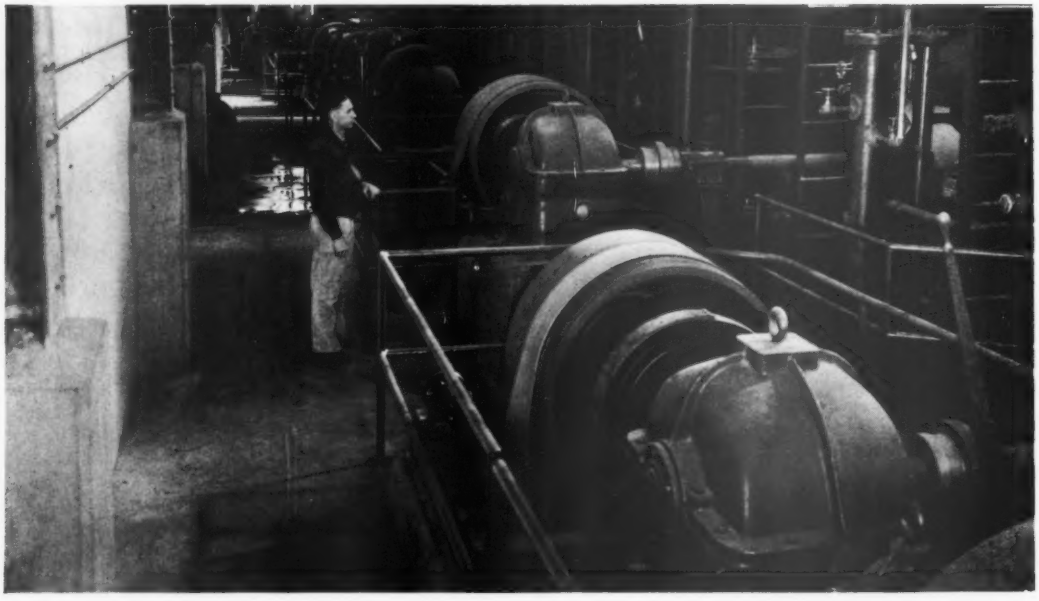

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The Interdependence of the West Coast Log Family

by WARREN G. TILTON*

Market Relationships

● It is only in recent years that Douglas fir forestry has been focused, at least in a large way, on the markets for the forest products of the region. This is true to considerable degree of our West Coast loggers whose direct interests do not extend beyond the booms. Our loggers and foresters have been overwhelmingly concerned with the cutting of trees and the growing of trees, and have largely ignored the use and marketing of those trees.

Too many of us have been like the old-timer who'd put in fifty years getting out logs without men wondering what happened to them after they went through the mill until he was shown a pair of rayon stockings in attractive use and was told where the rayon came from.

"So that's what they're usin' timber for nowadays. I'd like to see more of it," the old firtop marveled. "What else are they makin' out of the logs?"

It's a question we all need to explore a great deal more than we have been doing. Forestry in land use must be backed up by forestry in marketing and economics. We must learn to visualize our timber stands not only in terms of sawlogs, peeler logs, pulp logs, and types of new growth, but also in terms of houses, barns and boxcars; interior walls, showcases and boats; newspapers, shoe boxes, books, women's wear, shopping bags and mountains of Government printing; poles, posts, ties and Christmas trees; and trees too small for cutting but which begin to serve at an early age as a beautiful green cover for roadside lands and thus as an important attraction item for the Northwest tourist industry.

What I have to say in the following minutes on facts and figures of the forest situation in the Douglas fir region bears directly upon the market relationships of the region's forest products. For our sawtimber, our sawlogs, in the lumber field alone we need a varied and balanced market, a need unparalleled in any other lumber-producing region. No other commercial species has the range of uses enjoyed by Douglas fir. This means the development of a vast variety of markets for Douglas fir products, in order to secure the best possible returns from the log, and the best possible utilization of the log. The lumber products of West Coast hemlock, and of Western red cedar and Sitka spruce require special markets.

Here are obvious market relationships. Maintaining a balance is a constant problem for the West Coast lumber industry. A swelling demand for two-inch home-building lumber coupled with a falling demand for industrial items, creates, for example, a lopsided market for Douglas fir lumber. The effect of it goes right back to the sawlog and the stump. When hemlock demand for pulp use fails, hemlock logs must be left in the woods, or the sale of hemlock lumber must be promoted.

Many pages might be filled with similar examples of the relationships of markets for West Coast forest products, but I think those I have cited make my primary point plain.

We cannot log what we cannot sell. We cannot take forest material out of the woods for which there is no market. If we are to maintain timber-growing land and protect the timber crop so it may be harvested and used, we must have dependable diversified markets for all the products of the crop. We need to build up the principle of one great unified, balanced market for the products of the saw-log, the peeler log and the pulp log, as the major guiding principle of forestry for the Douglas fir region.

Now, what have we got to go on, with this principle? How can we carry it through? To indicate an answer, or a way to the answer, I'll present some plain facts and figures.

Our Storehouse of Mature and Overmature Timber

● First, in order to get our terms on a common ground, I will give some conversion factors. The Scribner & Spalding scales that are used in timber in the Douglas fir region show a thousand board feet, log scale, yielding approximately a ton of chemical pulp. Six hundred billion board feet of merchantable timber—that is, trees over 16″ in diameter — are standing in Western Washington and Oregon, on some 14 million acres of land. This timber is ready for use. The land is, for the most part, not active. It is, in effect, a 14-million-acre timber storehouse.

What do these billions of feet in storage mean, in terms of products and markets? In terms of a single general product, they mean six hundred million tons of pulp. All of our softwoods are suitable for pulp, and nearly one-third are hemlock and true firs, woods which make the high-grade pulps for which the pulp industry of this region is renowned.

Six hundred million tons of pulp is an astronomical amount. One cannot reduce it to terms of common understanding, even in quantities of newspapers and books. Six billion feet of timber is also an inconceivable volume. It would provide lumber for almost double the number of existing family dwellings in

Markets are the key to the future of the timber industries of the Pacific Northwest, says Mr. Tilton. "Forestry in land use must be backed up by forestry in marketing and economics."

"We cannot log what we cannot sell. We cannot take forest material out of the woods for which there is no market. If we are to maintain timber-growing land and protect the timber crop so it may be harvested and used, we must have dependable diversified markets for *all* the products of the crop. We need to build up the principle of one great unified, balanced market for the products of the saw-log, the peeler log and the pulp log, as the major guiding principle of forestry for the Douglas fir region."

*Forest Engineer, West Coast Lumbermen's Association and Pacific Northwest Loggers' Association. Presented at the Fall Meeting of TAPPI in Seattle, Washington, August 20-23, 1940.

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This incredible store of timber cannot, it is plain to see, find use solely in pulp products, or solely in home building. From the standpoint of good forestry it requires a far greater diversity of stable markets than we now have, and more stable, balanced marketing conditions.

Where It Goes Today

● In the Douglas fir region of Western Washington and Oregon, we are cutting this timber at a rate of from eight to nine billion board feet a year. About six to seven billion for lumber, a billion to a billion and a half for pulp, and another billion or so for plywood, shingles, fuel wood and other uses. These figures are nearly unbelievable when one considers that approximately one-third of the nation's timber is standing and nearly one-third of its forest products are cut in this little corner of the United States.

In addition to these enormous reserves of mature and overmature timber, we have some other conditions peculiar to ourselves.

A look at the map will show our inland waterways. In the north there is the Strait of Juan de Fuca leading into Puget Sound; then we have Grays Harbor, Willapa Harbor and the Columbia River; all supply facilities for industrial plants and ocean shipping. In addition, the Willamette River, a tributary of the Columbia, is now open for transportation of logs for about eighty miles and will be extended another eighty miles; and along the western coast of Oregon there are bays from which logs can be rafted or barged to the Columbia River or Grays Harbor; and then in southwestern Oregon, Coos Bay is an industrial area, open to shipping to all parts of the world.

Using a scale on the map, one will find that nearly all of the timber in the Douglas fir region is within fifty miles air-line from one or more of these waterways. Compare these distances with the hauls for raw materials to manufacturing plants, or from manufacturing plants to shipping centers with other forest regions in the United States.

These water ways provide site facilities for the major wood-using industries of the region. On all of them there is cheap electrical power and good road and rail connections, and a diversity of wood-using plants such as pulp and paper mills, sawmills, shingle mills, plywood plants, furniture, box board, tub and bucket shops. Furthermore, these waterways provide fine handling facilities for forest products in the form of sawlogs, poles, bolts or whatnot.

At very little expense the logs are unloaded into the waterways, sorted for use by species, size and grade and made into rafts that are scaled and valued. Here log rafts may be stored for months, if need be, available for inspection and purchase by buyers for the various wood-using industries.

With these inventories of logs available, each buyer may choose the particular species, grade or type of log desirable for his particular plant. This permits each plant to secure the raw material most adaptable to his business, and gives us an opportunity to put logs to their highest use. The logs are moved about the waterways by tugs, towing up to a million feet, or the equivalent of a thousand tons of pulp, at a time. This water transportation is effected at a fraction of the cost of rail transportation over equal distances.

Industries on one water way also supplement their log supply from one another. For example, high-grade fir logs are now being floated down the Willamette River from the center of western Oregon to the Columbia River and shipped from the Columbia River to Grays Harbor and Puget Sound by rail. Similarly, spruce, cedar and hemlock logs are shipped daily from Grays Harbor to Puget Sound. This all adds up to commercial log markets similar to the markets for agricultural and other commodities. These commercial log markets are found in practically no other part of the world. They give us the best possible opportunities for utilizing the various types of raw material grown in our forests. Many of our plants do control their own log supply, but most of these sell the products not suitable for their own plants and augment their own supplies from the open market.

Any kind of wood-using plant in the region with good dependable markets for its products can depend upon log supply from any area of the region. We have created here a real regional forest economy.

Tomorrow's Market Supply

● Such is the Douglas fir region's storehouse of timber and its outlets of manufacture. It is a huge and valuable resource with wonderful natural transportation channels. But, as it stands, it also represents considerable economic waste. An increasing amount is deteriorating annually, like the old wheat that has been stored too long in the Midwest. And it takes up a vast amount of forest-land acreage on areas throughout the region which ought to be producing new timber crops, a future supply for forest markets.

In short, these fourteen million acres now used for the storage of six hundred billion feet of timber also represent great productive capacity. We have eleven million acres already in timber production. When the fourteen million acres now used for timber storage are eventually put into active production, then our supply for forest markets can be sustained on a basis of real forestry. We can then grow more timber than we may hope to sell.

The Plain Facts of Growth vs. Depletion in the Douglas Fir Region

● You've probably heard that we in the Douglas fir region are cutting timber four times as fast as it is growing. That is a worse distortion of fact than was ever made in a war communique.

It is the same as saying that an acre of farm land that will produce thirty bushels of wheat and with the

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"These 14 million acres now used for the storage of six hundred billion feet of timber also represent a great productive capacity," says Mr. Tilton. "We have eleven million acres already in timber production. When the 14 million acres now used for timber storage are eventually put into active production, then our supply for forest markets can be sustained on a basis of real forestry. We can then grow more timber than we can hope to sell."

Glacier Park view, Courtesy of Great Northern Railway Co. Photograph by Hileman

"You've probably heard that we in the Douglas fir region are cutting timber four times as fast as it is growing. That is a worse distortion of fact than was ever made in a war communique," says Mr. Tilton.

"It is the same as saying that an acre of farm land that will produce thirty bushels of wheat and with the thirty bushels standing at harvest time, will not grow any wheat that year."

"With intensive forestry, the region will annually grow fourteen or fifteen billion board feet, or enough for at least a 50 per cent expansion. If the pulp technicians will help us by finding ways and means for using the thinnings from this growth, the expansion can be even greater."

thirty bushels standing at harvest time, will not grow any wheat that year.

That growth applies only on timber stands over 16" in diameter, and most of these stands have already reached maturity or decadence. It does not take into account any growth on the timber stands that you are familiar with in all other forest regions, of cord wood and pole sizes. Our log scales are designed primarily for the measurement of sawlogs.

I have already told you that our cut will run from eight to nine billion feet. As we cut the present overmature timber stands, now in storage, the lands they occupy will begin to produce; and even if we continued to cut timber as has been done in the past, with no thought for future forest growth, the evidence is that this region will produce the eight billion feet in spite of fire and high water.

With intensive forestry, the region will annually grow fourteen or fifteen billion board feet, or enough for at least a 50 per cent expansion. If the pulp technicians will help us by finding ways and means for using the thinnings from this growth, the expansion can be even greater.

Now, some more facts on growth. Many of our forest areas will grow the wood to supply a ton of chemical pulp per acre per year, some acres two tons; or, the annual growth alone on a square mile will run a one-hundred-ton pulp mill a week; or on fifty squares miles, for a year. That means that on some of our areas a one-hundred-ton pulp mill could be supplied perpetually from the forest growth within a five-mile radius; and there would still be twenty thousand acres in the area for farms and industrial use.

This growth is only a part of the story on supplies of raw material. When the eight or nine billion board feet is logged in the woods each year, enough wood is left behind for three million tons of cellulose. I believe this is more than the entire cotton crop of the nation. This material is not left because of any wish of our loggers to be destructive; it is left purely and simply because at the present time there is no market for this material. It is the timber that is partially defective and unsuitable for lumber manufacture; timber pieces too small to be economically handled; or logs of small diameter.

There is a job for you pulp and paper technicians—raw material for three million tons of pulp that may be had for the asking. The use of this wood would not only give better utilization, but would leave our forest lands in far better shape for the production of their next crop.

Why isn't the attempt made to use it? It has been tried. Pulp mills, fibreboard plants, barrel factories, charcoal burners, hog-fuel plants and other manufacturing plants have been designed to use this waste and the additional waste from our sawmills. Some have done so for a few years, but ultimately, all have found that our commercial logs, raw material in large sizes, can be handled so much more cheaply that even free wood waste is not attractive. It is a crime and a shame, and no one feels it more than the operator who must leave this unmarketable material in the woods. He feels it in his pocketbook, as a farmer does who must leave corn in the field for lack of markets.

The Transportation Problem

● Here's a bit of another side of the picture. We are stuck here in the northwestern corner of the United States, two or three thousand miles by rail from the principal consuming markets of the country. Rail transportation at $16.00 a ton for lumber takes away a lot of our other advantages. Water transportation is good to California and some western markets; but it is 7,000 miles from here to the Atlantic Coast markets via the Panama Canal as compared to the 3,000 miles to the Baltic countries, against whom we have no tariff protection. Of course, we do not need this at the present time, due to war in Europe.

Labor Costs

● Our minimum wage in most of the Northwest woods is 62½ cents an hour, and the average is above 80 cents an hour. I believe that only because of the Wage and Hour Law do some of our competitors pay as much as 30 cents. And labor is organized here. Labor in our own plants may be fully satisfied, but a strike among longshoremen, seamen, or some industry producing necessary equipment or materials, may close our plants for protracted periods and shut down our operations. Shutdowns are expensive.

The Forest Fire Problem

● There is also the ever-present fire danger. The tremendous amounts of inflammable material on our forest lands, plus the long dry spells that we have each summer, and the menace of a man with a match or a maid with a cigarette, or a spark from a berry-picker's pipe, creates a problem that is expensive and probably will not be solved for some time to come.

"On some of our areas a 100-ton pulp mill could be supplied perpetually from the forest growth within a five-mile radius; and there would still be twenty thousand acres in the area for farms and industrial use."

"At the present time," Mr. Tilton says, "our logging operations leave behind enough wood for three million tons of cellulose annually. This material is not left behind because of any wish of our loggers to be destructive; it is left behind purely and simply because at the present time there is no market for this material."

Should the Sawlog Pay the Bill?

● Those are just a few of the troubles that we have with us, but the biggest one is coming up. The hemlock and true firs grow mingled with the Douglas fir. Until now their logs have been produced as by-products of Douglas fir logging. Because they were a by-product, they have been available for pulp at a relatively cheap price.

Some of you from other regions will consider $8.00 to $14.00 for a ton of pulp in the form of logs a high raw material cost. However, in terms of cost of production in the Douglas fir region, cost which runs from $12.00 to $16.00 per ton, you can see that such prices are very reasonable.

The reason this has been possible is that in the past the Douglas fir sawlog has stood the fixed cost. By that I mean stumpage, construction costs, most of the depreciation for equipment, and so forth.

It has been possible to get out hemlock by charging only the actual labor and material costs against it. This probably has been sound business for our loggers; but with our timber stands, particularly in the northern part of the region, showing a much higher percentage of hemlock, it soon will become economically impossible to consider hemlock as a by-product and it will have to stand on its own feet, or its own roots, which will mean a marked increase in raw material prices for this product.

There is also the possibility that as the percentage of Douglas fir in our timber stands declines, hemlock will come back into favor for lumber. It makes good lumber — is matchless in several uses—as a softwood flooring, for example. We used to sell more for lumber than is now being used for pulp.

Even as lumber it has been considered as a by-product; and you know how sales managers hate to try to get rid of by-products. However, a good many retail lumber dealers and building contractors throughout the country have learned a high appreciation for the special values of West Coast hemlock lumber, particularly in flooring, paneling, and finish items. However, with the lack of dependable supply for the past few years because of the use of the logs for pulp, the demand for hemlock lumber has become dormant. This is an effect of the market situation in the pulp industry.

In other regions a man alone, or a man and a mule, can get out pulp wood; but here where the pieces handled all weigh from one to ten tons and the ground all seems to stand on edge, a much bigger investment for equipment to obtain raw material supplies is necessary.

The raw material is here—enough hemlock and true fir to make 170 million tons of pulp—enough to run the pulp plants in this region for well over one hundred years. There is enough forest waste to more than double this tonnage; and probably will before the next hundred years —and they say the first hundred years are the hardest. After that, my guess is that there will be even more wood available for cellulose.

What Does the Future Hold?

● But prophecy is folly on a subject that contains so many potentialities of change, of new uses, as that of forest products. We can be pretty sure that there will be many great developments in wood chemistry, all of which should advance the pulp log in economic importance. Think what simple glues have effected in the field of plywood. Now, out of plain two-inch common lumber, with the use of these bonding glues, stronger structural timbers are made than were ever cut in solid form from old-growth trees. Timber engineers, utilizing metal ring connectors, have restored the product of the tree to the field of heavy construction, and have made this a stable market for the second-growth small sawlog.

Yet most predictions, pro and con, on future forest depletion in the Douglas fir region are based on the assumption that present uses, markets and production in the region will remain unchanged. On this basis, such predictions are mostly pipe dreams.

But we do know that this region has the capacity to produce timber to meet any future needs that can now be practically conceived. And we do know that all the forest industries of the region have a unity of interest in forest markets, an interdependence in the balanced use and purchase by the American people of all the things that can be made from the harvest of the West Coast timber crop.

Dick Jennings Is Married

● Richard "Dick" Jennings, who was service engineer on the Pacific Coast for Oliver United Filters, Inc., a few years ago, was married in Brunswick, Georgia, on August 24th to Miss Harriet Stephens Snelling of Brunswick. Following the ceremony Mr. and Mrs. Jennings left for Atlantic City and New York on their honeymoon.

Mr. Jennings, a graduate in engineering from Oregon State College, became associated with the Champion Paper & Fibre Company, at Canton, North Carolina, after he left the Pacific Coast. Later he rejoined Oliver United Filters, Incorporated, in an engineering capacity and travels through the Southern states, maintaining headquarters in New York City.

Alexander Visits Northwest

● Taylor Alexander of the California Oregon Paper Mills at Los Angeles plant during August traveled north into Oregon and Washington visiting Yakima, Wenatchee, Seattle, Portland and Medford.

Defieux Takes a Vacation

● O. T. Defieux, steam plant superintendent, Crown Willamette Paper Company, Division of Crown Zellerbach Corporation, Camas, Washington, started his vacation August 26 after presenting a paper at the Fall Meeting of TAPPI in Seattle on the organization of the Camas Paper School.

"There is a job for you pulp and paper technicians—raw material for three million tons of pulp that may be had for the asking. The use of this wood would not only give better utilization, but would leave our forest lands in far better shape for the production of their next crop."

"Should the sawlog pay the bill," asks Mr. Tilton. At present the Douglas fir sawlog stands most of the fixed costs of logging. Hemlock has not stood its share due to the inadequate market for it for lumber or for pulp."

"The raw material is here—enough hemlock and true fir to make 170 million tons of pulp—enough to run the pulp plants in this region for well over 100 years. There is enough forest waste to more than double this tonnage; and probably will be for the next 100 years—and they say the first 100 years are the hardest. After that my guess is that there will be even more wood available for cellulose."

The Board Foot Unit Contributes To Logging Waste

● The Tuesday morning Timber Resources Symposium concluded with a discussion of the preceding papers by J. Kenneth Pearce, logging engineering professor at the University of Washington, who pointed to the board foot unit of log measure as an important factor contributing to waste in the woods by penalizing the smaller logs.

"The absurdity of the board foot scale for pulp logs," said Professor Pearce, "is evidenced by the middle curve of the (accompanying) graph, based on the Spaulding board foot and the Sorenson cubic foot log scales for logs 32 feet in length, which shows that the volume of cubic feet of wood per thousand board feet of log scale varies from 250 for a 9 inch log down to 125 for a 46 inch log, with a 17 inch log, which is the average diameter hemlock scaled in Puget Sound, containing 160 cubic feet of wood per thousand board feet. This results in the situation demonstrated by the lower curve on the graph labeled "Percent Free Wood" which shows that the 9 inch log contains 200 per cent more wood than is actually scaled, as compared with 50 per cent for a 46 inch log and 91 per cent for the average 17 inch log. When this is considered in connection with the upper curve of "Relative Log Cost," based on many analyses of the effect of log size on logging cost, which shows that a 10 inch log costs three times as much to log as a 17 inch log, and over five times the cost of a 46 inch log, the obstacles to the conservation of wood waste by logging the smaller logs now left in the woods are apparent."

Speaking for the independent truck loggers who are generally operating at the higher elevations where the pulp species reach their optimum in size and quality, he discussed the importance of quality grading and the marketing of pulp logs on a grade basis rather than lumping them all together and selling "camp run" as is the present custom. Since the truck loggers supply about 25 per cent of the logs to the pulp mills of this region they are an important factor in the industry. "The pulp log industry will not be placed on an economically sound basis" Professor Pearce concluded, "until the cubic foot replaces the antiquated board foot, and pulp logs are sold on the basis of quality grades."

Wage-Hour Complaints Filed Against Pulp and Paper Companies

● An injunction suit was filed early in September against the Southern Kraft Corporation, 220 East 42nd Street, New York, N.Y., by Philip B. Fleming, Administrator of the Wage and Hour Division, U. S. Department of Labor, in the New York United States District Court. It seeks to permanently restrain from shipping in interstate commerce products which, it is charged, are made from pulpwood cut and produced in violation of the Fair Labor Standards Act.

The Southern Kraft Corporation has about 15,000 workers engaged in the cutting of pulpwood from which kraft paper, wrapping paper, paper board, paper bags and allied products are manufactured at various mills. The defendant corporation purchases pulpwood from persons, firms and corporations, called contractors, who are alloted areas of operation by Southern Kraft to cut pulpwood from lands and stumpage rights owned by the corporation.

A similar injunction was filed by Colonel Fleming against N. E. Spessard and Sons, Richmond, Virginia, on August 30. In this complaint, which was filed in the District Court for the Eastern District of Virginia, it charged that the defendants produce pulpwood in violation of the Fair Labor Standards Act, and sell it to the West Virginia Pulp and Paper Company, which has a mill at Covington, Virginia, where it is manufactured into paper and other items for commerce. This defendant employes 500 workers, who are engaged in the cutting of pulpwood, and is one of the largest producers of pulpwood in the South. One of the partners in the firm, Rutherford H. Spessard, is president of the American Pulpwood Association of New York.

The first suit of this kind was filed against the West Virginia Pulp and Paper Company of North Charleston, South Carolina, on August 28. This company buys pulpwood, which it is charged, was produced in violation of Sections 6 and 7 of the Act and has 1600 workers engaged in the cutting of pulpwood, from which they manufacture paper, pulp, etc., at their North Charleston mill.

These actions involving the so-called "hot goods" clause of the Fair Labor Standards Act, which forbids the shipment in interstate commerce of all goods produced in violation of the Act, are a part of the Wage and Hour Division's enforcement "drive" to bring the entire pulpwood industry, employing about 150,000 workers throughout the country, into full compliance with the Fair Labor Standards Act, it was stated.

Frank Harwood Dies in Appleton

● Frank J. Harwood, 84, president of the Appleton Woolen Mills of Appleton, Wisconsin, died in that city on August 19th. Mr. Harwood's death resulted from a fall on April 27th when his hip was broken.

The oldest industrialist in Appleton, Mr. Harwood was active in his business until he suffered the unfortunate accident last April. He was general manager of the Appleton Woolen Mills for 59 years.

Throughout his life Mr. Harwood was active in industrial, civic and church affairs. He was president of the Eagle Manufacturing Company, a director of the First National Bank of Appelton and of the Northern Paper Mills, Green Bay, and president of the Appleton Cemetery Association. He was a director and president of the Appleton Y. M. C. A. for 40 years. For 63 years he was a member of the First Congregational Church and served as superintendent of its Sunday school for 40 consecutive years. In 1925 he was elected as a moderator of the National Council of Congregational Churches. He was a trustee of Ripon College and a charter member of the Appleton Rotary Club.

Surviving are his widow and two daughters, Mrs. S. F. Shattuck, Nennah, Wisconsin, and Mrs. Thomas E. Orbison, Appleton, and seven grandchildren.

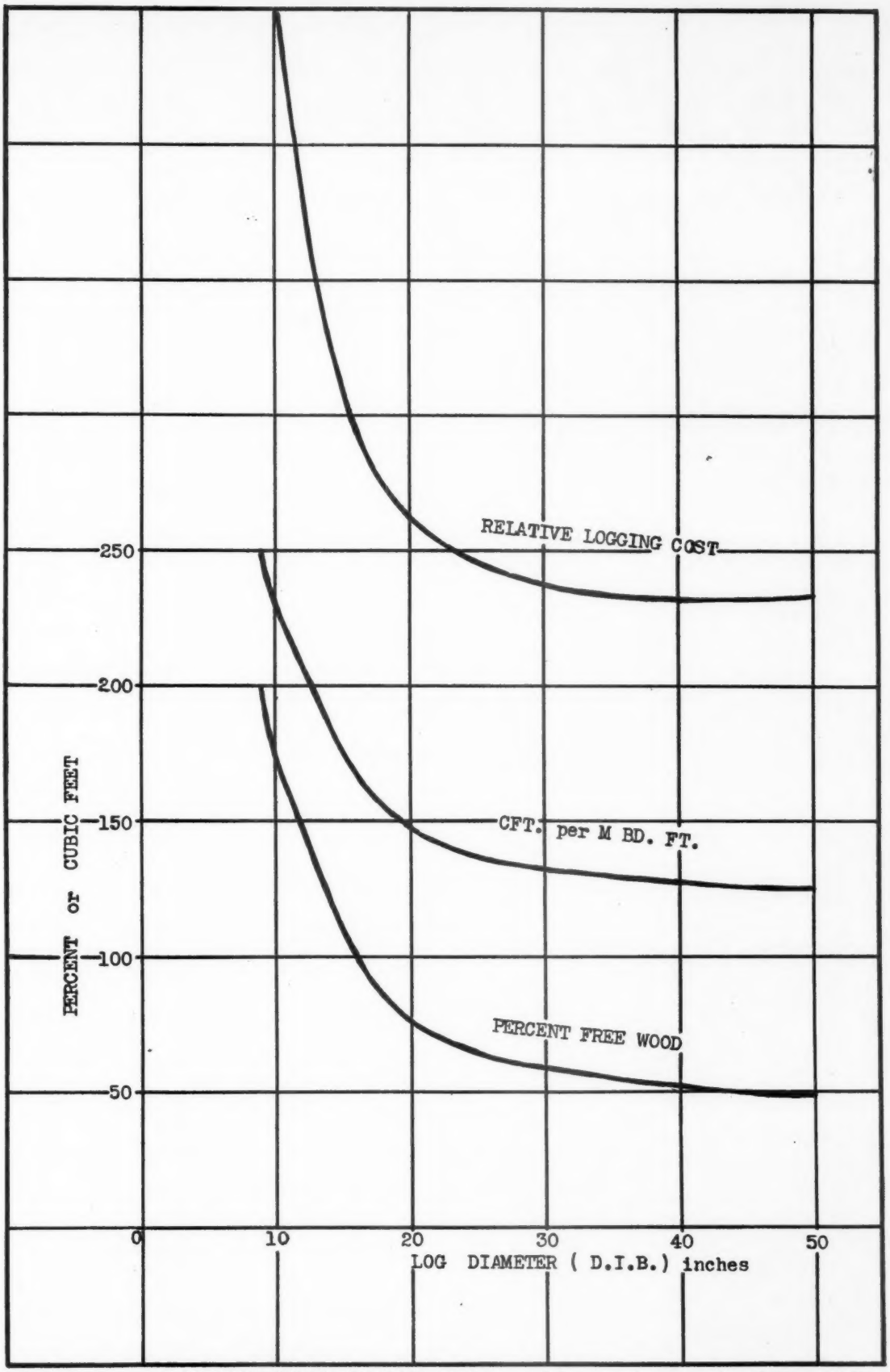
Honorary pallbearers at the funeral August 22nd included F. J. Sensenbrenner, president of Kimberly-Clark Corporation, Nennah; E. J. Murray, president, and H. W. Tuttrup, treasurer, Northern Paper Mills, Green Bay; A. F. Tuttle, president, Tuttle Press Company, Appleton. Active pallbearers included Lacey Horton of the Appleton Woolen Mills; Ralph Wirth, manager of the Reedsburg, Wisconsin, branch of the Appleton Woolen Mills; A. C. Remley of the Nekoosa Edwards Paper Company, Fort Edwards, Wisconsin; Foye Hutchinson of Evanston, Illinois; William T. Buchanan, president of the Appleton Wire Works, Appleton; and Dr. Thomas N. Barrows, president of Lawrence College and director of the Institute of Paper Chemistry, Appleton, Wisconsin.

L. O. Koester, vice-president and general manager of the Orr Felt & Blanket Company, Piqua, Ohio, attended, representing the Wool Manufacturers' Association.

Hawley Softball Team Wins Second Half Title

● The Hawley Pulp & Paper Company softball team cinched the second half pennant in the Oregon City Softball League on August 30th by defeating the Maccabees 11 to 3.

The Hawley team now plays a three-game series with the first half champions, the Oregon City Elks, for the championship of both halves of the summer's season.



The graph prepared by J. KENNETH PEARCE, Professor of Logging Engineering College of Forestry, University of Washington, to show the inaccuracies inherent in the board foot as a unit of measure of pulp logs ' ' ' The graph is explained in the accompanying text.

Trade Talk

of Those Who Sell Paper in the Western States

Paper Mill Men Plan Annual Hi-Jinks

● A pre-Hi-Jinks meeting of the Paper Mill Men's Club was held at the San Gabriel Country Club, San Gabriel, Calif., August 23rd, to make final arrangements for the forthcoming Sixth Annual Invitational Golf Tournament and Hi-Jinks, which will be held September 27th at the Riviera Country Club, Santa Monica, Calif.

Close to forty members attended the dinner which was preceded by a golf session participated in by fifteen of the group. Ansel Ernst won the blind bogey and Harry Fields and Frank Gladden tied for second with Gladden winning the toss.

A special guest of the club was "Andy" Christ, president of the Western Waxed Paper Co. Mr. Christ was in Los Angeles for a short visit returning after the meeting to his home office in San Francisco.

Arrangements for the coming Hi-Jinks have progressed well. Reports were made at the meeting by committee chairmen indicating the affair will be equal to or better than previous events.

Sports have been arranged for the afternoon. Besides the annual golf tourney which attracts a field of seventy players or more, softball the annual battle for the P. M. M. C. Pennant between merchants and millmen, horse shoes and tennis will be featured. The banquet is then held at seven o'clock.

High point in each year's party is the awarding of cash dividends in the annual Christmas Dinner Fund for Underprivileged Boys. More than twenty awards are made with the first, second and third prizes being $500, $100 and $50 respectively and remaining awards being $20. Report of the committee on this phase of the party indicated a good return on the project.

Another highlight in each year's affair is the entertainment which has each year been characterized by its repertoire of amusing and lively acts.

The event is the largest gathering of paper men occurring annually in the west and has become known throughout the country for its hospitable good fellowship.

Frank Philbrook's Daughter Married in August

● Jeanne Philbrook, daughter of Mr. and Mrs. Frank Philbrook of Los Angeles, became the bride of Mr. Richard Ungerland at Chapman Park Chapel on August 10th. Following their wedding ttrip Mr. and Mrs. Ungerland will return to make their home in Los Angeles.

Mr. and Mrs. Philbrook left shortly after the ceremony for a vacation trip north into Canada. Traveling by auto they planned to visit Banff on Lake Louise in Alberta and return to Los Angeles the latter part of August.

General Paper of San Francisco Combined With Zellerbach Paper

● In order to better serve its many customers, the General Paper Company, San Francisco Division, has been combined with the Zellerbach Paper Company, according to an announcement, making the change effective August 31.

The absorption of the General Paper Company, San Francisco, in no way affects the operation of the Los Angeles Division of the General Paper Company, it is pointed out by Zellerbach Paper Company officials.

Robert Kelly continues as manager of the Los Angeles Division of the General Paper Company.

Key personnel in the San Francisco office of the General Paper Company, have been transferred to the Zellerbach Paper Company, and likewise, the latter firm will undertake the distribution of many lines formerly distributed by the General Paper Company.

Renovation of the Los Angeles building of the General Company, on South Los Angeles Street, has just been completed.

All stock rooms have been completely rearranged so that orders can be handled more efficiently. New concrete receiving and loading platforms have been built. The capacity of the elevators in the building has been increased and the offices have been rearranged. As a final touch the building was steam cleaned and painted.

The work was done under the direction of E. A. Breyman, and under the direct supervision of Orville Johnson, who is engineering assistant to Mr. Breyman.

German Paper Coming In Thorugh Russia

● According to the Import Committee of the American Paper Industry, cases have been discovered where German specialty paper barred from shipment across the Atlantic by the British blockade, are reaching this country by shipment across Russia to Vladivostock, thence across the Pacific and across the United States to the New York market. The German value on such paper is so much lower than the American cost that the shipments can be made profitably, even with the high freight cost by such a routing.

Beckwiths Go Fishing

● C. H. Beckwith, Pacific Coast manager of Carter Rice & Co., accompanied by Mrs. Beckwith, enjoyed a fishing and camping trip last month in the Feather River country.

Strathmore to Have Traveling Representative On West Coast

● The Strathmore Paper Company of West Springfield, Mass., recently announced that it would be represented on the Pacific Coast by E. M. Hughes following the resignation of T. C. Macormack.

A revised sales program includes the closing of Strathmore's San Francisco office and the transfer of all business to the main offices in West Springfield.

Mr. Hughes will work out of West Springfield making regular trips to the Pacific Coast, the first one being scheduled for October and November. Having lived in San Francisco for eight years, Mr. Hughes is well acquainted with the West Coast. In 1930 he covered this region for Strathmore.

Prior to assuming the Pacific Coast responsibilities Mr. Hughes represented Strathmore along the entire East Coast with the exception of New York State.

Paper Prices Not Discussed

● In a memorandum to paper manufacturers dated September 6th, E. W. Tinker, executive secretary of the American Paper & Pulp Association said:

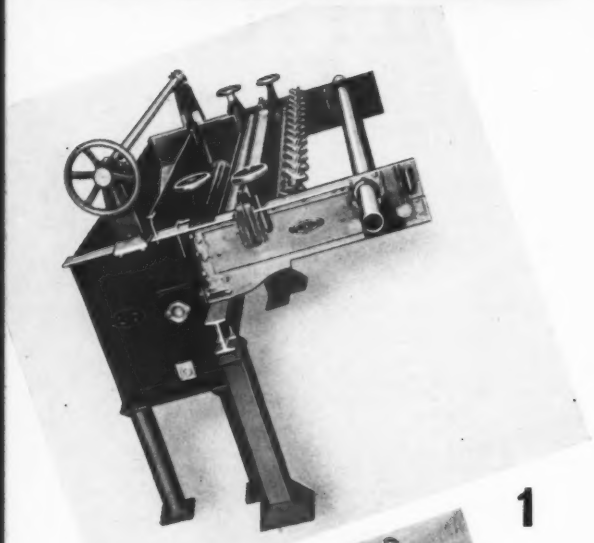
"During the past ten days several companies have made inquiry indicating that in the paper trade an impression has been created that the price of paper was discussed with representatives of the Advisory Commission to the Council of National Defense at the meeting in New York on July 23, 1940. I believe this impression was gained from publicity emanating from Washington.

"The entire discussion in so far as prices are concerned revolved around the situation with relation to pulp supplies and not paper. However, it was generally acknowledged by the representative of the Price Stabilization Division of the Advisory Commission to the Council of National Defense and industry representatives that present prices of paper were not based upon existing costs and that an adjustment upward might naturally follow as present inventories were exhausted. I am sure the misinformation that seems to be prevalent was the result of a failure to distinguish between pulp and paper in Washington publicity that followed the meeting."

H. S. Bonestell Elected President Bonestell & Co.

● H. S. Bonestell, Jr., was elected to the presidency of Bonestell — Co., pioneer San Francisco paper merchants. Mr. Bonestell is also general manager of the company.

VALLEY INLETS



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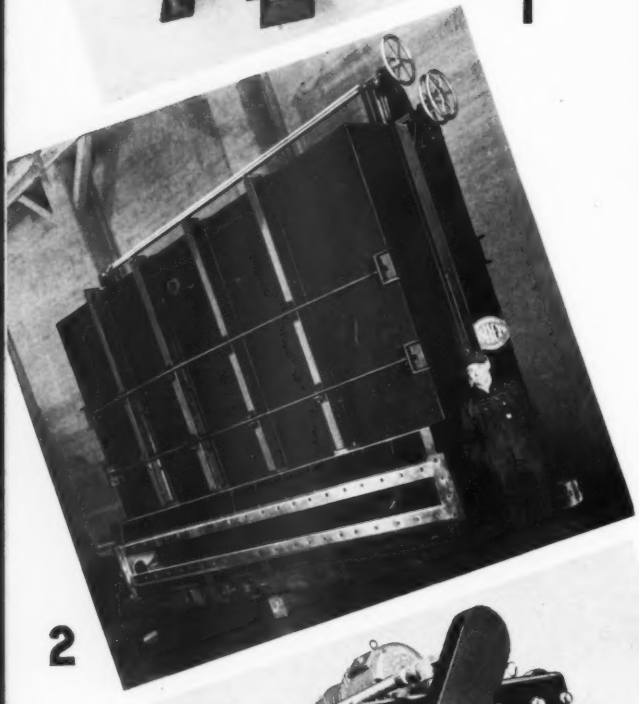

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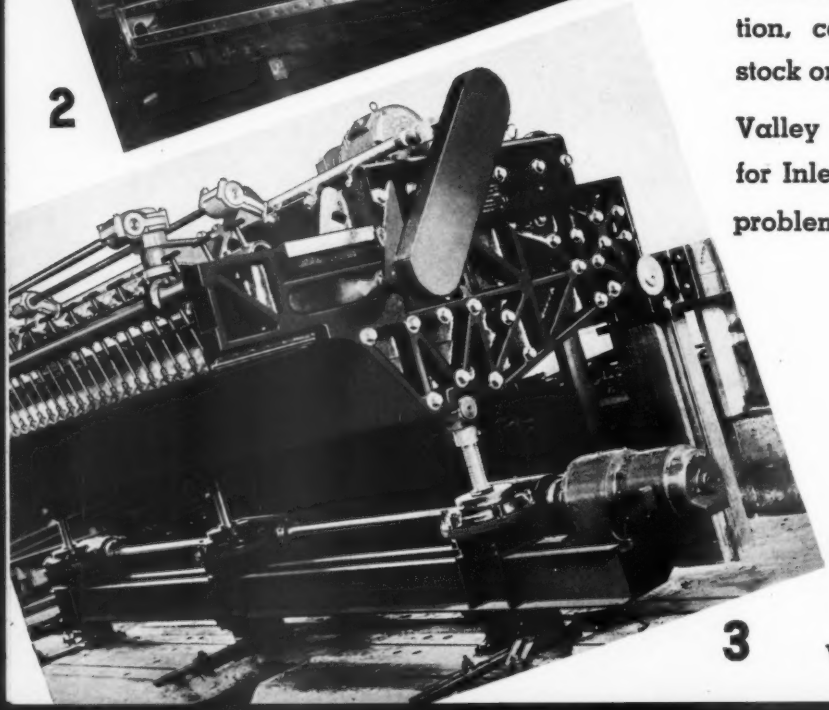

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The

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Only VALLEY can build the wide range of inlets shown here. The most difficult inlet problems come to us — and we solve them.

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Vortex Beaters — Laboratory Equipment
Screw Presses — Paper Markers

EUGENE A. BREYMAN
20 Years of Service

Breyman Awarded 20-Year Service Pin

● A fifth of a century in the service of the Zellerbach Paper Company was celebrated last month, when I. Zellerbach, chairman of the board of directors, presented E. A. Breyman, vice-president and operating department manager of the company, with a 20-year service pin at a board of directors meeting.

Mr. Breyman served in the last World War as a first lieutenant in the field artillery. When the war was over he went to work in the warehouse of the company, and later represented the Zellerbach company in Japan, China, Federated Malay States, and Java.

Coming back to the United States Mr. Breyman was made operating manager of the San Francisco Division, and in 1930 was elected vice-president and made a member of the board of directors.

Tom Finerty Jr. Married in August

● Thomas J. Finerty, Jr., son of the wrapping paper sales promotion department manager, Zellerbach Paper Company, San Francisco, was married last month to Miss Dorothy Mae Wilson of San Jose. Young Finerty is connected with the San Jose Division of the Zellerbach Paper Company, and the couple are building a home in the Garden City.

Edgar Colton With Zellerbach In Kansas City

● Edgar Colton, son of Louis A. Colton, vice-president of the Zellerbach Paper Company, is working in the sales department of the Kansas City Division of the company.

Helping the Red Cross

● Girls of the San Francisco and Headquarters Divisions of the Zellerbach Paper Company have turned to with willing hands and are knitting and sewing with zest for the San Francisco Red Cross Chapter.

Hold Surprise Party For Lee Doherty

● Lee J. Doherty, Sacramento division manager of the Zellerbach Paper Company, was a very startled man last month, for company employees from Sacramento, Redding, and Reno, gathered together to do him honor on the occasion of the presentation of his 25-year service pin, at a surprise party.

Mr. Doherty was blindfolded, seated in a wheel chair, and given a brisk ride around Sacramento. The blindfold was removed to the tune of "Old Man Doherty Ain't What He Used To Be," loudly if not well rendered by his fellow employees, who were dressed in Old Timers' costumes.

Then Louis Colton, vice-president of the Zellerbach Paper Company, introduced E. A. Breyman, vice-president, to the throng. Mr. Breyman then pinned the emblem on Mr. Doherty's chest. A nice touch was that Mr. Breyman had established Mr. Doherty as Sacramento Division Manager in 1928.

Kelly Joins Commercial Paper Corporation

● J. W. Kelly, formerly with the General Paper Co., San Francisco, has joined the sales staff of the Commercial Paper Corp., San Francisco.

Martin Cantine Close San Francisco Office

● E. B. Skinner, for a number of years manager of the San Francisco office of the Martin Cantine Paper Co. of Saugerties, N. Y., has resigned from the company, and the office has been closed.

Harold Zellerbach A Grandfather

● A very young grandfather, indeed, was wearing a proud smile last month at San Francisco headquarters of the Zellerbach Paper Company. Harold Zellerbach, president of the company, had just heard the news that his daughter, Mrs. Stephen N. Loew, Jr., the former Miss Rolinde Zellerbach, had been blessed with a baby girl in Los Angeles. The bundle from heaven has been named Susan.

Whiting Back From Two Months at Mill

● Ned Whiting returned to Los Angeles late in August following a two months stay at the Millwood, Washington, plant of the Inland Empire Paper Co. While at the mill, Mr. Whiting devoted considerable time to studying the various operations of manufacture. He also filled in on vacation relief for others of the office personnel. That there was also good opportunity to indulge his hobby of photography was evidenced by the fine set of pictures he brought back with him of various mill operations.

Paganini-Schmidt Wedding in San Francisco

● Wedding bells rang out last month for J. Paul Paganini of the Seaboard Paper Co., San Francisco, and Miss Mary Schmidt also of San Francisco. Miss Schmidt is the daughter of Richard Schmidt of the Schmidt Lithograph Co., San Francisco. The newlyweds spent their honeymoon at Lake Louise and Banff.

Graham Paper Company
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August 30, 1940

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F. R. PHILBROOK ASST. MGR
PACIFIC COAST DIVISION
1324 WASHINGTON BLDG.
311 SOUTH SPRING STREET
LOS ANGELES, CALIFORNIA

Mr. Calvin D. Wood
124 West Fourth St.
Los Angeles, California

Dear Cal:

On my return from my vacation, I found on my desk a copy of the "Pacific Pulp & Paper Industry" for August. I want to take this opportunity to congratulate the Pacific Pulp & Paper Industry on the splendid magazine they issued for August. The printing and set-up, to my mind is superb.

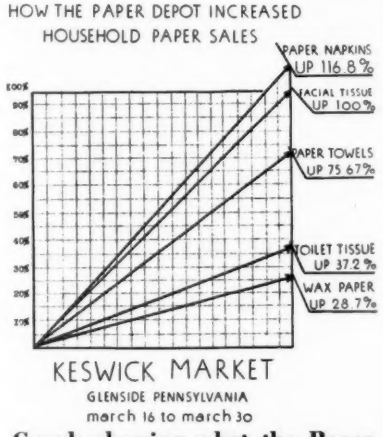
Without a doubt I believe that this magazine is one of the finest trade papers I have ever had the privilege to read. Ever since I first subscribed to this magazine, I have noted how energetic the editors strive to produce a magazine worthy of the Paper Industry, and their leadership merits commendation.

Yours very truly,
F R Philbrook

"Tested Papers" to be Distributed By Blake, Moffitt & Towne

● For the first time a single brand on a complete line of nationally-advertised, competitively priced and laboratory tested household paper products is reaching the Pacific Coast market.

To be distributed on the Coast by Blake, Moffitt & Towne, the new line, which includes household towels, facial tissue, toilet paper, wax paper, and paper napkins, is merchandised through a "Paper Depot"— a pre-tested idea that has already brought greatly increased turnover to eastern grocers and druggists who have been retailing the products for the past five months.



Graph showing what the Paper Depot did to increase paper sales in one store.

Tested Papers of America is a nationwide organization of leading paper merchants who jointly control and distribute these products which are divided into three grades—Test-Mark, Test-Line, and Testex.

In one of the most modern and completely equipped paper testing laboratories in the United States, recently completed at the Chicago headquarters of the organization, the first known system for double checking paper quality was put into operation. First, samples direct from the manufacturer; and second, samples of products taken from retailers' shelves from coast to coast are subjected to rigid checking and exhaustive tests. This insures standardization, improvements to keep in step with the times, and top quality.

The design of Tested Papers' packages represents a searching and far-reaching design job by Robert Sidney Dickens and his staff who worked in close cooperation with the art department of the Ruthrauff & Ryan advertising agency. The color and design of the first quality line, Test-Mark, gives the utmost in feminine appeal, with increasingly bold treatment in color and design for the second and third qualities—Test-Line and Testex. Thus a distinction between qualities was arrived at so that the buyer would not feel that cheaper products were designated in any way as being cheaper.

A good example of the excellent packaging of Tested Papers is seen in the patented Wax Meter Roll. It is a round container designed to fit the housewife's hand and it gradually adjusts to a smaller size as the paper is removed. The paper meter at the end of the roll automatically records the amount of paper remaining on the roll. The paper tears smoothly and evenly on a straight metal edge—thus risk of hand injury, said to be encountered in using the saw-tooth type of cutter, is completely removed.

Tested Papers are merchandised through an attention compelling, colorful display medium—the Paper Depot—which provides a complete house-hold department in a relatively small space and which has already proved to be the most successful point of sale merchandising method ever devised as a means of increasing the turn-over of household papers.

Reports from stores in the east and middle west show how turnover has increased amazingly after the Paper Depot was installed. For example: the Keswick Market, Glenside, Pa., the Zalm Dry Goods Co., Racine, Wis., and the Roosevelt Food Shop, Kenosha, Wis., reported stepups in sales ranging from 30 to 150 per cent on the entire line.

Tying in with the Paper Depot and the rest of the streamlined, and aggressive merchandising program Tested Papers advertisements have been appearing in the Saturday Evening Post, The Ladies Home Journal, The Country Gentleman, and McCalls, as part of a large national advertising campaign to reach every possible type of consumer.

Blake, Moffitt & Towne is the exclusive distributor of Tested Papers in the West. The company has had two luncheon meetings of all its employees to acquaint them with the merits of Tested Papers, and Tested Papers will be featured in the company's advertising.

TESTED PAPERS PAPER DEPOT, a display system that places all household paper specialties before the eyes of prospective purchasers.

General Paper Now Concentrating on Printing Papers

● The General Paper Co. of Los Angeles, according to R. L. Kelly, general manager, closed out its wrapping paper department late in August. This move was made in order to specialize more in printing papers and to increase inventory of this class of paper. Tom Myers, formerly head of the wrapping paper department for the firm, is now with the Zellerbach Paper Co. in the Long Beach territory.

Macormack Leaves the Paper Industry

● T. C. Macormack, since 1932 West Coast representative of the Strathmore Paper Co. of West Springfield, Mass., has resigned from the company effective August 10.

An announcement by John D. Zink, vice-president of the Strathmore Paper Co., states that they have decided to close the San Francisco office and conduct all communication and representation from the main office at West Springfield. The announcement said that within a short time a representative would be named who will cover the West Coast on regular schedules.

Mr. Macormack started in the paper business with the Zellerbach Paper Company in 1922. He has announced that he has formed a new connection in an executive capacity with Lindgren & Swinerton, a large and well known firm of building contractors.

Taylor Visits Coast Jobbers

● Lane Taylor, secretary-treasurer of the W. C. Hamilton & Sons Company, Miquon, Pa., was out on the Coast last month.

August Newsprint Production Up

● Production in Canada during August, 1940, amounted to 316,607 tons and shipments to 332,234 tons, according to the News Print Service Bureau. Production in the United States was 86,633 tons and shipments 81,714 tons, making a total United States and Canadian newsprint production of 403,240 tons and shipments of 413,948 tons. During August, 31,724 tons of newsprint were made in Newfoundland, so that the total North American production for the month amounted to 434,964 tons. Total production in August, 1939, was 347,595 tons.

The Canadian mills produced 485,614 tons more in the first eight months of 1940 than in the first eight months of 1939, which was an increase of twenty-six and nine-tenths per cent. The output in the United States was 54,362 tons or eight and seven-tenths per cent more than in the first eight months of 1939, in Newfoundland production was 37,248 tons or nineteen and one-tenth per cent more, making a total increase of 577,224 tons, or twenty-two per cent more than in the first eight months of 1939.

Stocks of newsprint paper at the end of August were 160,123 tons at Canadian mills and 18,812 tons at United States mills, making a combined total of 178,935 tons compared with 189,643 tons on July 31, 1940, and 232,605 tons at the end of August, 1939.

Germany Now Sweden's Only Pulp and Paper Market

● The closing of Sweden's export markets caused by the blockade measures instituted by the warring powers has resulted in a complete isolation of the Swedish pulp and paper industries from their most important markets. During the early war months exports were maintained to a certain extent, but during the spring a virtual stoppage occurred. This is clearly seen in the production figures compiled by the Federation of Swedish Industries. The index figure for the pulp and paper industries, which reached 119 in January (basis year 1935), fell to 115 in March, 88 in April and 55 in May, 1940. Full information covering current exports is not available, but it is almost certain that Sweden's leading export industry is operating at less than a third of its normal capacity.

Some encouragement has been derived from the trade agreement just signed with Germany which calls for the shipment of about 200,000 metric tons of chemical pulp and 15,000 metric tons of mechanical pulp during 1940, in addition to the quantities previously contracted for. This will make the year's deliveries in Germany three times the normal sales to that country in earlier years. At the same time it was agreed that Germany will purchase a certain quantity of paper. Germany is the only market open at present to Sweden's wood products. The total amount of foreign exchange, which Germany has allotted for the purchase of such products from Sweden, is believed to be about 45,000,000 marks (German mark averaged $0.39999 in United States currency at the end of July, 1940), a large portion to be used for paper and pulp. This sum, of course, is very small in comparison with Sweden's total export, but for the present offers the Swedish industry some outlet for its accumulation of stocks. Hence, the agreement will not cause any rise in the operation of the mills. Increased production may later prove necessary because a sufficient stock should be kept on hand with a view to future sales. Offices of the American Commercial Attache, Stockholm.)

Production Ratio at 85.7%

● The American Paper & Pulp Association's weekly production ratio report giving percentage of production to capacity states that the industry's operations for the week ending August 31st were 85.7 per cent of capacity. For the comparable week in 1939 the ratio was 85 per cent.

The preliminary report for the month of August shows 87.2 per cent of capacity compared with 82.9 per cent for August of 1939. July of this year showed 87.1 per cent and July of 1939, 75.2 per cent. The highest month of the year was June with 93.8 per cent of capacity.

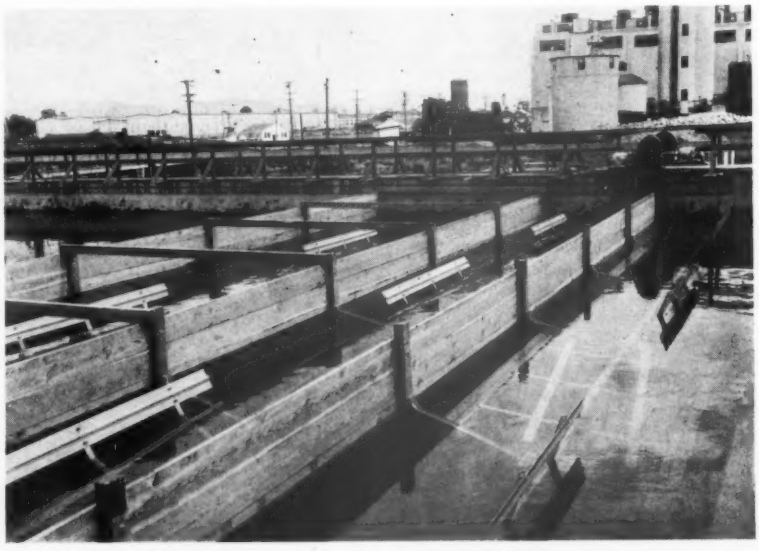
For the first 35 weeks of 1940 the ratio stands at 88.4 per cent against 80.7 per cent for the same number of weeks in 1939.

Paperboard operating ratios reported by the National Paperboard Association were at 74 per cent of capacity for August and the same for the final week of that month. This compares with 72 per cent for the same month in 1939 and 72 per cent for July of this year. The high point so far in 1940 for paperboard operations was June with 79 per cent of capacity.

Weyerhaeuser Longview Mill Installs Flocculators

● In July the Longview bleached sulphite pulp mill of the Pulp Division Weyerhaeuser Timber Company added two sets of flocculators to the water filter plant to increase capacity. Each set of flocculators is made up of three units extending the full width of the settling basin. The three units in a basin are operated by an electric motor through a Western Gear Works reduction drive between the motor and the drive chain leading to the shafts.

The flocculators were designed to stir and agitate the floc to facilitate the coagulation of small pieces into larger ones which settle to the bottom more rapidly, thus reducing the load on the filters.



FLOCCULATORS were recently installed in the water filter plant of the Pulp Division Weyerhaeuser Timber Co., Longview, to increase water treating capacity.

Douglas Fir as a Pulpwood

A Modified Sodium Sulfite Process For the Pulping of Douglas Fir

by L. C. HAFFNER* and KENNETH A. KOBE**

ABSTRACT

Douglas fir is the greatest wood supply available today, but no satisfactory pulping process exists for the production of commercial bleached pulp. The conditions have been determined under which Douglas fir can be pulped by a modified sodium sulfite process to give a high grade pulp. The optimum conditions are: 1.38 moles Na_2O per liter sulfited to a pH of 9.4, liquor ratio 4 liters per kg. dry wood, cooking at 360°F for 7 hours with 2 hours for raising the temperature. The pH of the liquor is the controlling factor in producing quality pulp. Douglas fir pulp is characterized by its high tear values and good mullen, with easy bleachability. Western hemlock also can be pulped under similar conditions to give a pulp with mullen values approaching kraft, good tear and easy bleachability.

THE vast stands of Douglas fir existing in the Pacific Northwest make it desirable that this species be available to the pulp industry as a pulpwood. The rapid growth of fir on cut over lands also allows fir to be put on an annual crop basis and be a perpetual supply of pulpwood in this region of the country.

The volumes of pulpwood available for cutting are shown in Table 1, from data in surveys of the Pacific Northwest Forest and Range Station of the U. S. Forest Service. These data are shown graphically in Figure 1.

The lumber industry has drawn upon these stands of Douglas fir, but the non-utilization of this species for pulp has necessitated that the lumber industry care for the entire cutting of fir. Having available a process for the pulping of fir, it is possible to combine the operations of the lumber mill and pulp mill to give a high degree of wood utilization, lower costs of lumber, lower costs of pulpwood, and a stabilization of the lumber industry by forcing out marginal operators using older and less economical methods.

Previous Sulfiite Pulping

● The pulping of Douglas fir by the standard and modified calcium bisulfite processes has been investigated by a number of workers who perceived the importance of the problem. Wells and Rue[15] in their study of the suitability of American woods for paper pulp state that Douglas fir pulps with difficulty because of the pitchy character of the wood to give a pulp of fair strength and poor color, and that the bleachability is too high for commercial operation. Beuschlein[4] showed that the difficulty in pulping was not entirely due to the pitchy character of the wood, as extracted resin-free fir was more resistant to sulfite liquor than white spruce.

The most extensive work on the pulping of Douglas fir is that of Brookbank[7], who attempted to find the mildest conditions for pulping. He pulped sapwood, heartwood, and an 85-15 mixture of the two representative of slabwood. His conditions were liquor, 6.00 per cent free SO_2, 1.25 per cent combined SO_2; liquor-wood ratio 7.1; digester pressure 85 p.s.i. gage attained initially by compressed nitrogen; gas volume maintained constant. Temperature and time were the only two variables and the two cooking schedules called for either 10 hours ending at 145°C, or 14 hours ending at 134°C. In the shorter schedule only sapwood could be pulped, in the longer schedule mixtures representing slabwood and the entire tree could be pulped. The yields were about 50 per cent, with a bleach consumption of about 16 per cent. Brookbank believes that the long time cook on fir is feasible because the density of the fir chip is greater than the spruce chip, so that the tonnage produced from a digester would be about the same with either wood. These calculations are based on the unstated assumption that the chips are from slabwood (85 per cent sapwood and 15 per cent heartwood) which has a density 1.35 times that of spruce. Based on the composition of the whole tree, Douglas fir, spruce and hemlock all have approximately the same density. Brookbank notes the unusual properties of the pulp, high tear and low apparent density, which make it an unusual blending ingredient in various furnishes.

The ammonium bisulfite process has been investigated on Douglas fir by Benson and coworkers[2,3] who were able to pulp sapwood directly and ammonia extracted heartwood.

The Sodium Sulfite Process

● The sodium sulfite process has been known and operated spasmodically for a long period of time. The pulp produced is known for its desirable properties of high strength and easy bleaching, and commands a ready market. The variable results in pulping and the past unsatisfactory state of the recovery process have forced the decline to the point where only one mill in the United States operates such a process and that intermittently in conjunction with a kraft mill so that the sulfite black liquor can be absorbed by the kraft operations.

An excellent review of the work previous to 1926 on alkalies as bases for sulfite liquor was given by Hausen [12]. He describes the work done on the weakly acid, alkaline and neutral alkali sulfite pulping as done by early workers as Cross, Graham, Schwalbe and others up to the work of Drewsen.

Various modifications of their patents are described by Bradley and McKeefe[6] who subdivide the Keebra process into full-, acid-, thio-, sulfo-, semi- and carbo-, depending on the modifying chemicals present with the sodium sulfite. Their article has all the indefiniteness of their patents and gives no real information. However, the actual operation of several mills is described by Clark[10]. In the full-keebra process the cooking reagent is sodium sulfite (Na_2SO_2) only. The amounts of chemicals required are about 400 pounds Na_2O

Presented at the Fall Meeting of TAPPI, Seattle, Washington, August 20-23rd, 1940.

*Chemical Engineer, Portland, Oregon.
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per cord of wood and about 450 pounds sulfur per ton of pulp. The cook is eight hours at 150 p.s.i. for spruce and hemlock. The feasibility of the process and the excellent qualities of the pulp also are given by Drewsen[11].

The scientific aspect of the pulping problem has been attacked by Chidester[8] who pulped white spruce, western hemlock and slash pine. The cooking liquor was maintained constant at approximately 6 per cent total sulfur dioxide and the combined sulfur dioxide increased by adding increasing amounts of sodium hydroxide to the liquor, thus varying the combined from 1 to 6 per cent. Yield, bursting strength and tear strength all passed through a maximum value at 2 to 3 per cent combined sulfur dioxide, fell to a minimum at 4.5 to 5 per cent and rose again as the combined approached the 6 per cent total representing sodium sulfite. The effect of various additions of chemicals on the pulping of sodium sulfite was studied by Chidester and McGovern[9] who added sodium hydroxide, sodium sulfide and sodium bicarbonate to the sodium sulfite liquor to give pH values near 9 and 11. Yields were 41-43 per cent with all reagents, and only sodium sulfide exerted any effect, which was an appreciable reduction in the bleach requirement of the pulp.

The lack of success of the calcium bisulfite process on Douglas fir and the success of the sodium sulfite process on many woods encouraged work on the application of the sodium sulfite process to Douglas fir and the determination of the optimum conditions for the produtcion of a high strength, readily bleached pulp that would find ready market acceptance.

Experimental

● The basic consideration of all the work was to make the experiments conform as closely as possible to mill operating conditions. Thus, all chips used were secured from mills operating on the particular wood. The Douglas fir chips were secured from the Everett Pulp and Paper Company, and were produced from scantling lumber and logs too poor for sawmill use. Thus the wood was mainly old growth fir and no distinction was made as to sapwood and heartwood. As the chips were produced for a modified soda process they were not sized, dusted or otherwise selected so contained bark and knots. Moisture was determined on each lot of chips as used.

Cooks 145 to 198 were carried out in rotary digesters electrically heated by resistance elements wound on the body of the digester[5]. The capacity is 50 liters and the charge consisted of 4 kilograms of oven dry wood and 16 liters of liquor. Cooks 199 to 213 were carried out in a stainless steel digester of 240 liters capacity and heated by indirect circulation[13]. The charge here consisted of 37 kg. oven dry wood and 150 liters of liquor.

The liquor was prepared by bubbling commercial sulfur dioxide into sodium hydroxide solutions. The pH was determined with a colorimetric Hellege pH set. The ratio of liquor to oven dry wood was maintained constant at 4 liters to 1 kg. wood, which corresponds to 960 gallons per ton of chips, or 1920 gallons per ton of pulp, assuming a 50 per cent yield. This ratio corresponds to the practice of sulfate mills, but is lower than the ratio used in sulfite mills.

Preliminary experiments showed that the pulp produced under acid conditions did not have as satisfactory properties as that produced under alkaline conditions corresponding nearly to sodium sulfite. Further work in the acid range was abandoned and a complete investigation made of the controlling factors in the alkaline range. Under alkaline conditions impregnation occurs during the short heating up period, so that the digester was brought to cooking temperature as rapidly as the heating facilities permitted. Yields are reported only on the small cooks where all the pulp produced could be oven dried and weighed. Variables studied were cooking time and temperature, ratio of base to wood, ratio of base to sulfur dioxide, and pH.

Chemical Ratio and pH

● The ratio of liquor to wood was maintained constant at 4 liters per kg. oven dry wood. The ratio of base to wood is conveniently expressed in terms of the concentration of base in the solution, or moles Na_2O per liter of solution. Thus four times this value is the moles Na_2O per kg. dry wood, 248 times the moles Na_2O per liter is the grams Na_2O per kg. dry wood. The ratio of base to acid is expressed as Na_2O/SO_2, thus a 1.0 ratio represents Na_2SO_2. The pH of the solutions represent a variable readily determined and one which has a great influence on the characteristics of the pulp.

Although pulping can be carried out with 0.44 moles Na_2O per liter, equivalent to 11 per cent of the weight of the dry wood, practical results are obtained with 0.78 moles Na_2O per liter, equivalent to 19.5 per cent of the weight of the dry wood. Using this amount of chemical, the cooking conditions in the rotary digester were adjusted to a total time of nine hours ending with a three to four hour period at 360°F. Using a constant 0.78 moles Na_2O per liter, the Na_2O/SO_2 ratio

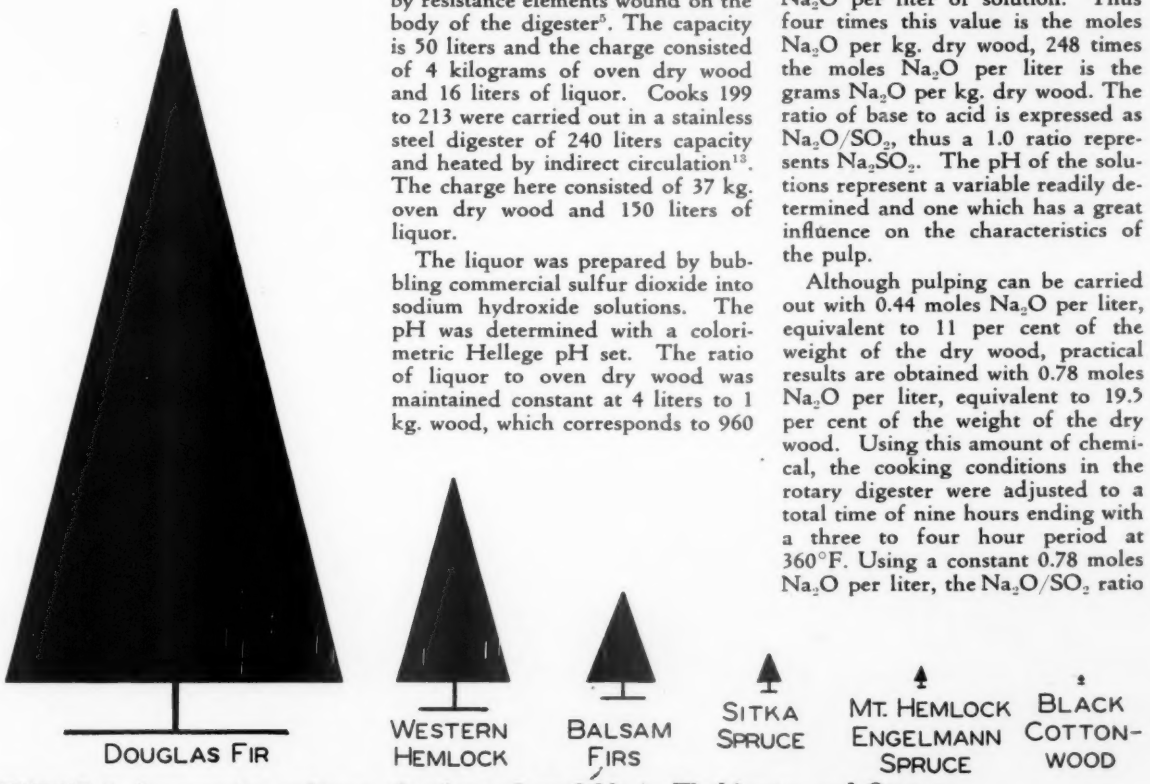

FIGURE 1. Comparative volumes of pulpwood available in Washington and Oregon.

was changed and the physical properties of the pulp determined. The results of runs 145, 147, 149, 151 are shown in Figure 2, in which the physical properties are plotted against the pH of the liquor.

It is seen that the physical properties pass through a minimum at a pH of about 6, but thereafter increase rapidly. The chlorine number also increases rapidly but at a pH of 9.4 drops to a low value while the mullen and tear values remain at a maximum.

The influence of pH was studied at four other concentrations of Na_2O. In Figure 2 are shown the data for 1.17 moles Na_2O per liter, in Figure 4 for 1.50 moles Na_2O per liter.

A concentration of 1.17 moles Na_2O per liter corresponds to Na_2O equal to 29 per cent of the weight of the dry wood, and 1.50 moles Na_2O per liter corresponds to 37.5 per cent. With 1.17 moles Na_2O the best physical properties are found in the pH range of 9 to 12. With 1.50 moles Na_2O the best physical properties are found at a pH of 12, but bleachability is poor. In all cases a pulp of excellent properties is obtained at a pH of 9.4, so a series of runs was made in which the pH was maintined constant at 9.4 and variable Na_2O concentrations used, as 0.78, 0.97, 1.17, 1.38 and 1.50 moles Na_2O per liter. The results are shown in Figure 5.

The maximum physical properties are found at 1.38 moles Na_2O per liter, corresponding to 34 per cent of the weight of the dry wood. Further cooks (178 to 190) were made to evaluate the influence of temperature and time. A temperature of 360°F. is necessary to produce a strong bleachable pulp. An increase to 370°F. benefits the bleachability but decreases the strength of the pulp. Hemlock is more sensitive to temperature than Douglas fir and a process designed to operate on fir with the addition of the hemlock logged conjointly with the fir must operate with 360°F. as an upper limit.

The operating data and physical properties of the pulp produced are given in Table II. Runs 145 to 198 represent runs in the small rotary digester.

Na_2O/SO_2 Ratio and pH

● The relationship between the pH of a 1.0 moles Na_2O per liter solution and its sulfur dioxide content is shown in Figure 6.

At neutrality there is an excess of sulfur dioxide over sodium oxide amounting to 0.2 moles. At the equivalence point, or Na_2O/SO_2 of 1.0, the pH is 8. At a pH of 9.4 where the best pulping is obtained the base is 0.1 mole in excess of the acid. At pH values of 10 and 12 rapid breaks occur in the curve, the former occurring at the best value for low bleachability and the latter at the upper limit for strong pulp.

Yields

● Yield data were taken on five cooks and the results shown in the following table.

Cook No.	Moles Na_2O per Liter	Dry Pulp Per Cent Dry Wood
173	0.78	47
174	0.98	47
175	1.17	44
178	1.38	43
172	1.50	41

The yield of dry screened pulp is expressed as per cent of the dry wood pulped.

Pilot Plant Operation

● The small scale operation showed the optimum conditions as pH 9.4, 1.38 moles Na_2O per liter and a cooking temperature of 360°F. It was desired to transfer these results to a digester capable of producing 30 pounds of pulp per charge. This larger digester is of stainless steel construction with external heating and circulation. The results from this digester can be transferred to a commercial digester.

The chlorine numbers of the pulp were too high to come within the range of easy bleaching pulps, so that in making runs 199 to 213 on a large scale, the cooking time was varied from 4.3 hours to 7 hours. The longer cooking time corresponds with the lower chlorine numbers, and contrary to expectation the stronger grades of pulp are obtained at the longer cooking time. This relation holds good for both Douglas fir and hemlock.

In Table II, runs 199 to 213, are given the operating conditions and physical properties of the pulp produced.

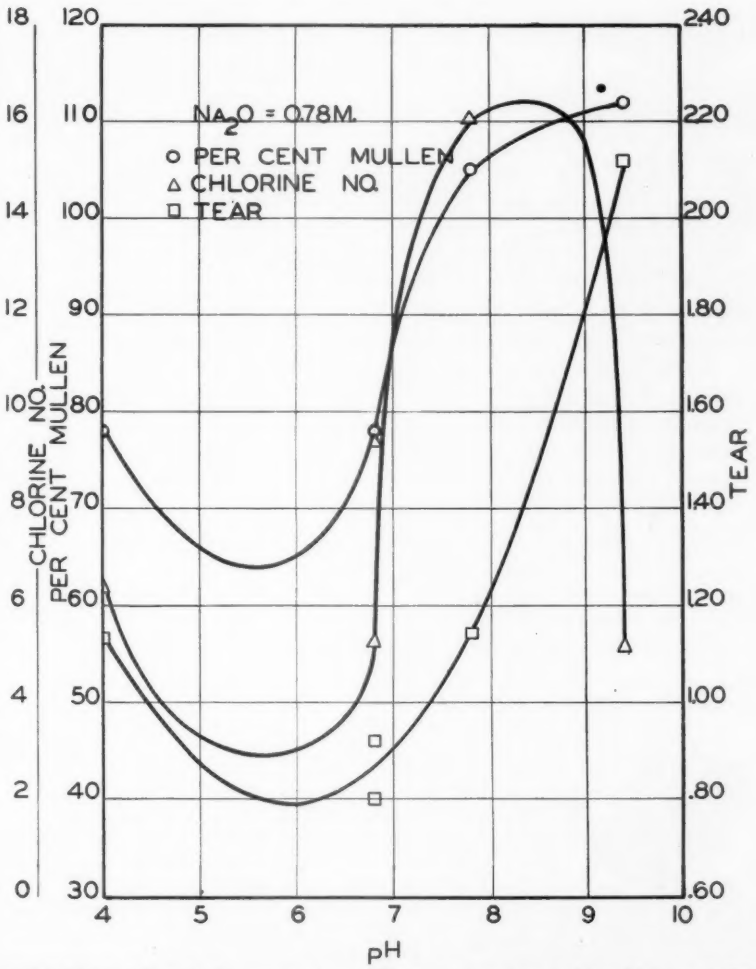

FIGURE 2. Physical properties of pulp at various pH values at 0.78 moles Na_2O per liter of liquor.

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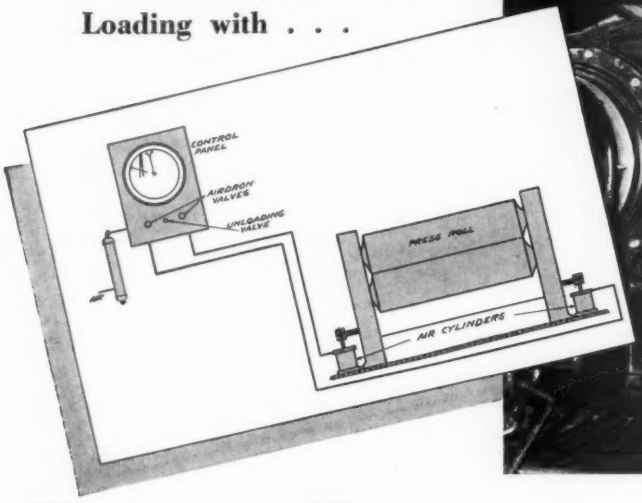

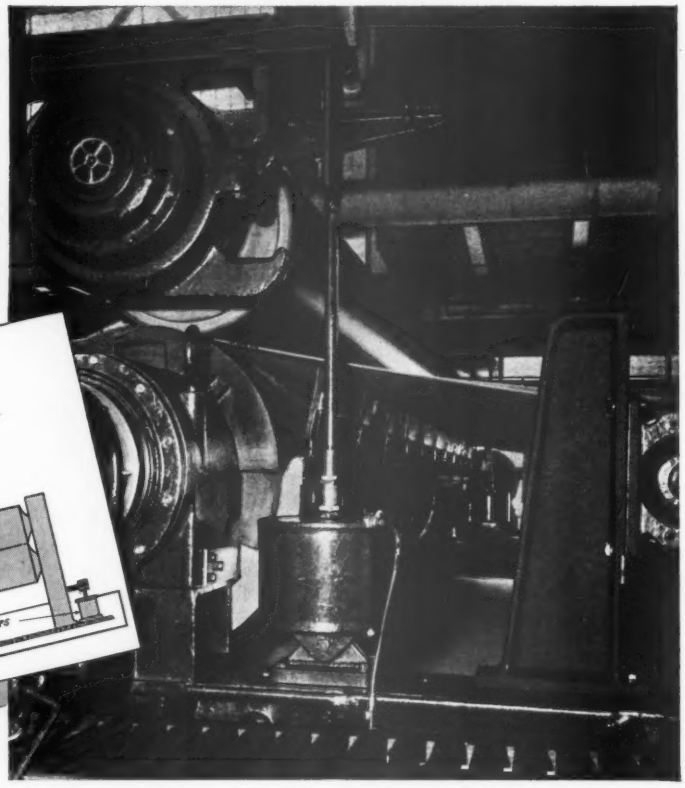

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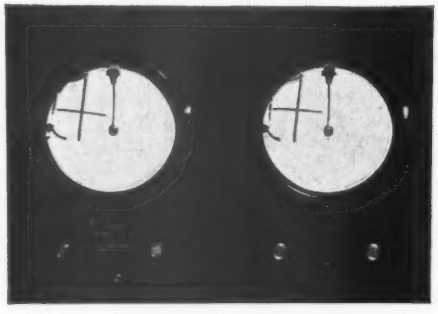

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Bleaching

● The pulp produced in about half of the large scale cooks was bleached in a laboratory bleacher[14]. The pulp was subjected to a first stage chlorination using 80 per cent of the total chlorine indicated by the chlorine number. The pulp was washed, the pH raised to 10 by the addition of sodium hydroxide and the pulp again washed. The second stage consisted of a sodium hypochlorite bleach to a G. E. brightness of 80. The pH during this stage was maintained at 10 by the addition of sodium hydroxide, if required. To overcome the tendency towards color reversion on drying, which may be expected of alkaline pulps, the final wash water contained small quantities of sodium hexametaphosphate (Calgon). This wetting agent apparently aids in the removal of the loosely bound lignin or color bodies that cause color reversion.

Physical Properties

● The physical properties of the pulp produced are given in Table II. All physical tests were carried out in the laboratory of the Soundview Pulp Co. at Everett, Washington, by one of their chemists according to their regular laboratory procedure used on their pulp. The weight of a sheet size 6½x6½ inches is taken. Mullen is the average of nine pops divided by the sheet weight times 100. Tearing strength in the Elmendorf is determined 5 times on four strips 165x63 mm. Tearing resistance is the (average tear)[4] (100)/average sheet weight. Freeness is determined in the Schopper-Riegler freeness tester. In Table II the last value marked SV represents the physical properties of unbleached slush pulp produced by the Soundview Pulp Co. from hemlock.

In Table III are given the physical properties of the bleached pulp. Again the last value, SV, represents Soundview bleached hemlock.

The sodium sulfite pulp from Douglas fir is characterized by good mullen values, 145 being easily obtained. The most important characteristic is the high tear strength, values in excess of 200 usually being obtained. Thus the pulp may be beaten to obtain a higher mullen while maintaining acceptable tear values.

The sodium sulfite pulp from hemlock shows mullen values equal to kraft pulp and higher tear values than are commonly obtained with sulfite. These properties are combined with the easy bleaching properties of a sulfite pulp.

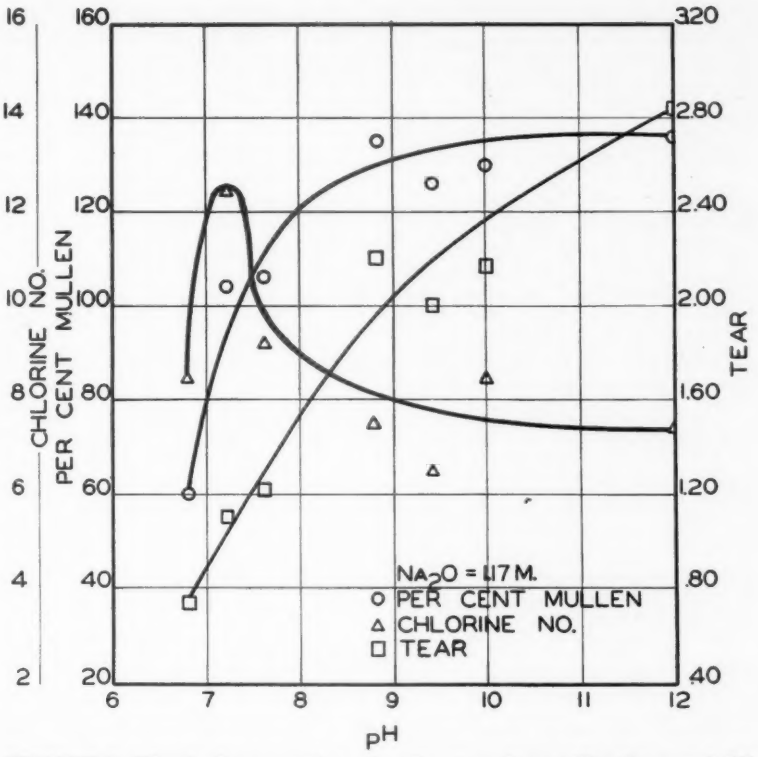

FIGURE 3. Physical properties of pulp at various pH values at 1.17 moles Na_2O per liter of liquor.

Chemical Properties

● A chemical analysis of the pulp was made from an unbleached fir (run 201) and a bleached sample (run 200). The results are:

Run	201	200
State	Unbleached	Bleached
Alpha Cellulose, per cent	91.1	88.6
Copper Number	1.3	1.2
KOH Soluble	14.8	19.4
Cuprammonium Viscosity, seconds	5.0	1.3

The chemical analyses compare very favorably with rayon grades of sulfite pulp. The viscosity is relatively low compared to rayon sulfite, but this may be an inherent property of the pulp as a modified chemical sulfate pulp from fir also showed a low viscosity.

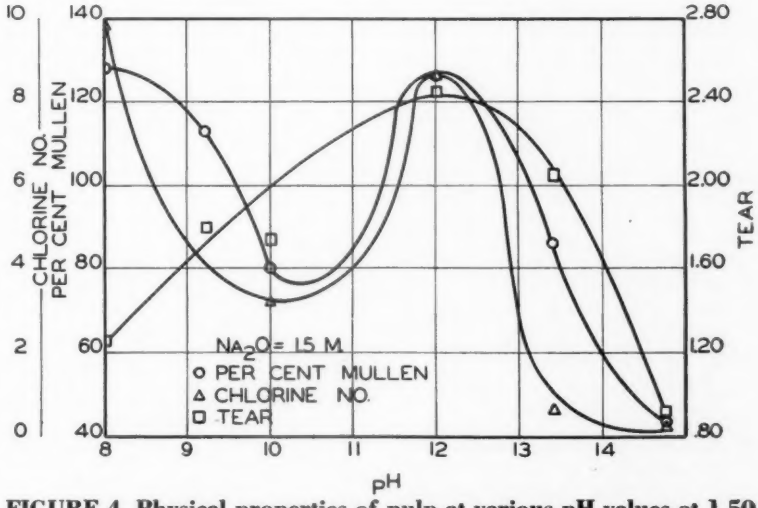

FIGURE 4. Physical properties of pulp at various pH values at 1.50 moles Na_2O per liter of liquor.

Hemlock and Other Woods

● Stands of Douglas fir timber are interspersed with western hemlock, the amount varying from 10 to 50 per cent of the stand. In lumbering operations this would be removed with the fir, but all of it would go into pulping and none to the sawmill. Thus a process operating on fir must be able to utilize the hemlock, preferably being able to cook a mixture of the two woods under the same conditions. The pulping conditions for hemlock have been studied, both on a laboratory and pilot plant scale. As previously pointed out, hemlock is more sensitive to the temperature and time of cooking than is fir. A temperature of 360°F. is the upper limit for hemlock and the time is usually reduced from that necessary for fir. The properties of the pulp are given in Table II, runs 202, 203, 207 and 208. The properties of the bleached hemlock are given in Table III, runs 206, 209 and 213.

Southern pine chips were obtained from the Herty Laboratory and pulped experimentally. The results are given in run 196.

Cottonwood and aspen also were cooked. The results are given in runs 193 and 195. These woods overcook easily and both the temperature and time can be reduced to give good pulp.

Thus it is apparent that all types of wood can be pulped by this process to give excellent grades of pulp.

Thiosulfate

● In regenerating the pulping liquor thiosulfate is often formed along with sodium sulfite. Previous investigators report deleterious effects of thiosulfate and place the upper limit as five per cent of the total chemical. The effect of thiosulfate was determined by adding 0.1 mole $Na_2S_2O_3$ per liter to the pulping liquor, equivalent to about 8 per cent of the total chemical content. The data are given in run 187, showing no deterioration and instead, a somewhat improved mullen and tear. Aronovsky and Gortner[1] report sodium thiosulfate to be a strong pulping reagent. The results shown in this run indicate that under the proper conditions thiosulfate is not deleterious, but may be an accessory pulping agent. Further work on this phase of the problem is in progress.

Recovery

● No review of the various recovery processes proposed or operated in the past will be given here. Work on this important phase of the problem indicates that a satisfactory solution of the problem is available. Work on this phase will be reported later in another paper.

Conclusions

1. Douglas fir can be pulped successfully by a sodium sulfite process to give a pulp of superior physical properties.

2. The optimum conditions are: 1.38 moles Na_2O per liter sulfited to a pH of 9.4, liquor ratio 4 liters per kg, dry wood, cooking at 360°F. for 7 hours with 2 hours for raising the temperature.

3. Douglas fir pulp is characterized by its high tear values and good mullen, with easy bleachability. Hemlock pulp has mullen values approaching kraft, good tear and easy bleachability.

4. The pH of the pulping liquor is the controlling factor in producing quality pulp, the range for best results is at a pH of 9 to 12. A pH of 9.4 produces the best average result, while the higher pH values benefit the chlorine number at a sacrifice of physical properties.

5. Hemlock, southern pine, cottonwood and aspen were successfully pulped.

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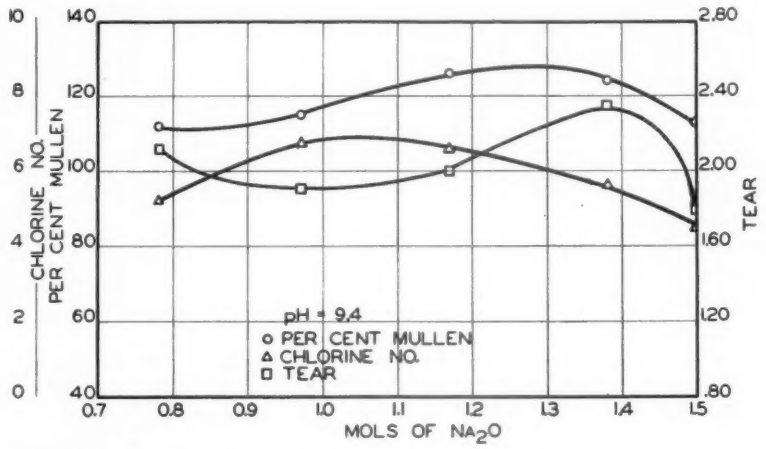

FIGURE 5. Physical properties versus moles Na_2O per liter at a constant pH of 9.4.

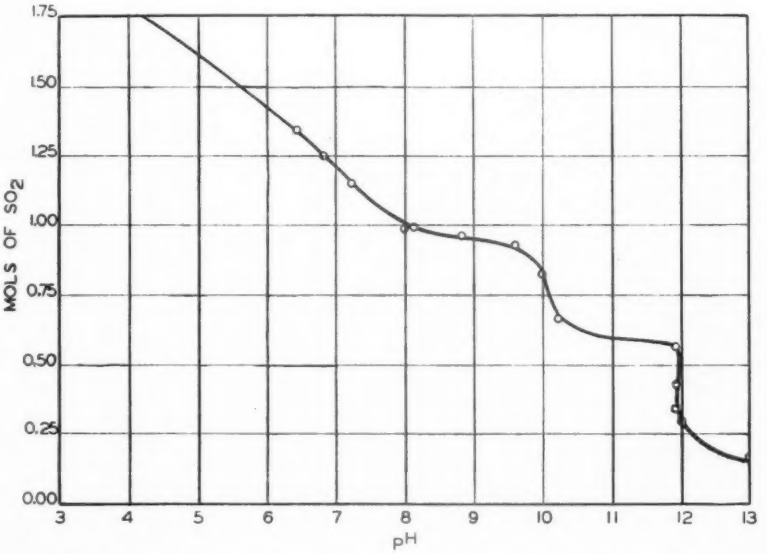

FIGURE 6. pH of solutions containing 1.0 moles Na_2O per liter and variable SO_2 content.

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Stephens and Graham Join Foxboro Representatives

● Bumstead-Woolford, who were recently appointed representatives of The Foxboro Company in the Northwest, have announced that C. H. Graham and E. E. Stephens have joined their organization and will devote themselves to matters pertaining to the sale and service of Foxboro instrumentation and control.

The services of the entire organization will be available to Foxboro customers in Washington and Oregon, but Mr. Graham will normally operate from the Portland office at 301 Lewis Building and Mr. Stephens from the Seattle office at 1411 Fourth Ave. Both men are well known to the users of Foxboro instruments and control and it is felt that this marks a distinctive step toward providing Foxboro customers with an improved type of service.

Mr. Graham enters the organization with a thorough background of experience in Foxboro manufacturing procedure, product application and service. Following his graduation in electrical engineering from Oregon State College in 1936, he entered the employ of Foxboro. His work since that date has included two years of experience at Foxboro's branch plant at San Francisco and two years of work among the pulp and paper mills of the Northwest, where he has cooperated closely with mill personnel in the specification and selection of instrument and control equipment for the important improvements made in mill operations over this course of time.

Mr. Stephens' activities since graduation in 1933 from the University of Illinois in mechanical engineering, have been devoted to instrument and control problems in both the power plant and process fields. A large part of his experience has been gained from intimate contact with problems of the pulp and paper industry. He has been engaged recently at Foxboro's branch plant in San Francisco, studying product assembly procedure, instrument service and control applications.

In maintaining established offices in both Seattle and Portland, with a complement of four men from these offices, it is believed Foxboro service and assistance are brought closer to the pulp and paper mills of the Northwest.

C. H. GRAHAM, Joins Bumstead-Woolford Organization

E. E. STEPHENS, Joins Bumstead-Woolford Organization

Hyer, Root and Petrie Calling on Coast Mills

● For Several weeks following the 1940 Fall Meeting of TAPPI in Seattle, three Black-Clawson, Shartle Brothers and Dilts Machine Works men visited with operators and executives at the plants on the Pacific Coast.

Allan Hyer of the Black-Clawson Company, Hamilton, Ohio; Edward M. Root of the Dilts Machine Works, Fulton, N. Y., which recently became a division of Black-Clawson and Shartle Brothers; and Robert T. Petrie of Portland, Oregon, Pacific Coast representative for the three associated pulp and paper mill equipment manufacturers, called at almost every mill from British Columbia to Southern California.

One purpose of the calls was to acquaint men in the Pacific Coast industry with the Dilts Hydrapulper and Hydrafiner. The Hydrapulper has been on the market about a year and 24 have been sold to mills making a variety of papers and boards. This machine will take batches of from 500 to 5,000 pounds of pulp or waste paper in any form and fully pulp the stock to any desired consistency in from 5 to 15 minutes.

A recent Dilts advertisement said in part, "Yesterday's pulping systems are practicaly antique when compared with the new startling Dilts Hydrapulper System. Almost overnight, the greater production speed, the lower cost, the uniformity of stock and the tremendously increased output of the Hydrapulper have made ordinary pulping systems obsolete."

With the Hydrapulper Dilts have developed a system embodying the Cowles Classifiner which is so compactly arranged that a setup large enough to handle 100 tons of mixed paper stock per 24 hours can be located in a space 20 by 30 feet. It is reported that from a power standpoint the complete Hydrapulper cotninuous system can be operated on about half the power required of a complete waste paper system employing the conventional continuous breaker beater.

Robert T. Petrie, representative on the Pacific Coast for Black-Clawson, Shartle Brothers and the Dilts Machine Works, lives in Portland, Oregon, at 3206 N. E. 42nd Street.

Pomona Holds Golf Tournament

● The office and mill personnel of the Fernstrom Paper Mills, Inc., of Pomona, Calif., held a golf tournament and dinner party on Labor Day at the Los Serranos Country Club near Chino. Some ten golf teams were expected to participate in the competition. The dinner will be attended by the 175 members of the organization and their families.

Paper Exports Up 132% First Six Months

● Exports of paper and manufactures from the United States were valued at $32,048,286 in the first six months of 1940, according to the U. S. Department of Commerce. This was a gain of 132 per cent over the $13,772,504 value of the exports for the same period of 1939.

The value of the exports in June was given as $6,634,018.

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HANDLING 100 TONS OF PULP AT 1% CONSISTENCY OCCUPY ABOUT 3000 ▯

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Simple graphic comparison of the floor space required by Rifflers (black area) and Vortraps (white area) handling the same character and quantity of pulp.

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The Operation of Sulphate Recovery Units On Soda Ash-Sulphur Mixture

by W. F. GILLESPIE*

DURING 1936-1938, sulphate mills began to evidence some concern over the supply of saltcake. Several factors contributed to the prevailing interest in supply. Among these were, increase in price of saltcake, a tendency toward control of the saltcake market, the growing uncertainty of the European situation, inability to obtain long term contracts, and the increase in saltcake requirements brought about by the rapid increase in production of southern sulphate pulp.

Interest in saltcake substitutes became marked. Anhydrite and soda ash interest revived, nitre cake was retried, chrome cake, Chilean by-product cake and natural deposits were investigated again, berkite (a double sodium carbonate, sodium sulphate salt) was introduced. Processes were modified in many cases to utilize soda ash in some way. This was a logical development when the relatively high soda content of soda ash is considered. Alkali companies, whose plant capacities were large, were naturally very much interested in capitalizing on the extreme interest shown by the consumers. Certain local conditions permit the economical and satisfactory use of many of the substitutes listed above, but it is questionable if one can say that general use—at least at present—could be made of any of the possibilities previously mentioned.

Synthetic Saltcake

● One of the major alkali companies had been experimenting for some time, with a different saltcake substitute—a combination of soda ash and sulphur, which has acquired the name "synthetic saltcake." This material is the subject of the present discussion. It has been suggested to consider the material from the **operating standpoint.** This request is rather fortunate as a technical or highly chemical discussion might readily lead off on a theoretical tangent that could carry one almost anywhere he would like to go in the wide range of soda, sulphur compounds.

Synthetic Saltcake is a granular free flowing material of a greenish yellow color. Chemically it is a mixture of soda ash and sulphur, which have been sintered together to give intimate contact of its two main components.

A typical analysis is as follows:

Na_2CO_3	=	74.53%
Na Cl	=	.13
H_2O	=	.54
S	=	24.72
Na_2O		43.67

Comparing this with a commercial 97% saltcake whose composition is

S	=	21.8
Na_2O	=	42.4,

it is evident an attempt has been made to get sulphur and Na_2O content in about the proportions of commercial cake.

Preliminary Commercial Runs

● The first commercial run on this material was made in the Gaylord Container plant at Bogalusa, Louisiana, when four cars of product were run as a test. All tests reported in this paper were run on the same B & W-Tomlinson 135 ton unit.

Considerable difficulty was experienced in this first trial, chiefly caused by the physical characteristics of the product. The material was dusty, causing unpleasant unloading conditions; it was bulky; it was somewhat sticky due to fine particle size and did not feed uniformly from the hoppers; it had a tendency to cling to the saltcake belt feeder; the saltcake system used is a pneumatic one and fine particles escaped into the exhaust, causing unsatisfactory working conditions.

The material did not mix well in the concentrated black liquor; granules agglomerate into lumps of sufficient size to plug the spray nozzles, at times, becoming so bad that the feed mixing tanks had to be dumped; increased temperature and better agitation in the mixing tanks did not overcome the troubles; the net result was irregular feed and low furnace production.

Chemically, we found our sulphur losses increased in the flue gases by about 18%; soda stack losses increased only slightly; reduction jumped from 95% to 98%; total sulphur in the smelt decreased by 12½%.

This preliminary trial was not a success, but we attributed the difficulties in a large measure to the physical characteristics of the material and it was decided to repeat our tests with a coarser granuled material.

Two cars were prepared with larger particle size and tested and, following this, a run was made using a ten car lot.

Some of the dusting and handling difficulties were eliminated, but excessive sulphur loss in flue gases, decrease in sulphidity of green liquor and irregular black liquor feed were still problems which, in our opinion, seriously affected the efficiency of recovery furnace operation.

While this paper is intended to be somewhat general in nature, some analytical figures are presented. From a large number of tests, operating the furnace in the same manner, we have set up some comparative data. These data are selected because we feel that they represent, fairly accurately, conditions enabling us to draw a reasonable comparison between synthetic and regular saltcake under normal operation, when both regular and synthetic saltcake are fed in the black liquor.

Trial Runs With Batch Addition of Soda Ash-Sulphur

● The suggestion was made by the producers of the material that perhaps a change in the method of addition of the synthetic saltcake would improve operation.

The intimate mixture of sulphur with organic material in excess produces a considerable quantity of H_2S. The organic material may be hydrocarbons, wood, bark, black liquor solids, etc. Mixed with the black liquor, some of the free sulphur probably reacts, generating H_2S which burns to SO_2 and the incomplete absorption of SO_2 in the spray towers sometimes following Tomlinson units could account for considerable loss.

On the other hand, sulphur may unite with the sodium radical to form sodium compounds in several ways as Savell pointed out in his paper at the Spring, 1940 meeting of

*Presented at the 1940 Fall Meeting of TAPPI, Seattle, Washington, August 20-23rd, 1940. Technical Director, Gaylord Container Corporation, Pulp and Paper Division, Bogalusa, Louisiana.

TAPPI, without the generation of H_2S and the subsequent SO_2.

Therefore it follows that, if the free sulphur could be directly combined with the sodium and the generation of H_2S eliminated, the possibilities for decreasing the excessive sulphur losses would be eliminated.

The producers of the material experimented with the addition of the synthetic saltcake, by charging it in batches into the furnace in a number of mills and on various types of recovery units with reported satisfactory results.

Four cars were run as a test run on one B & W-Tomlinson furnace. Approximately 800 pound batches were shoveled into the rear door of the furnace every ½ hour. Approximately two minutes were required to charge the saltcake. The furnace was put under vacuum of about 0.2" water during charging of saltcake.

Furnace operation may be described during this three day test as better than average, and the following discussion outlines conditions during this period.

1. Fuel bed was maintained at greater depth than normal; a hot furnace resulted.
2. Steam production increased by about 3500 pounds per hour over the test period at approximately equivalent Na_2O production rates.

TABLE I

	Regular Saltcake	Synthetic Saltcake
Test Number	17	18
Duration of Test	240	250
Gas Volumes	38,400 cfm	41,450 cfm
Temperature	259	211
Orsat. CO_2 and SO_2	8.5	9.0
O_2	10.8	10.4
CO	0.9	0.4
N_2	79.8	80.2
Na_2O Losses During Test		
Na_2SO_4	657	779
Other Cobinations	527	456
Total	1,184	1,235
Sulphur Losses During Test		
As Na_2SO_4	339	401
As gases	255	565
Total	594	966
Lbs. Na_2O fed/hour	5,279 lbs.	5,302 lbs.
% Na_2O lost	5.61	5.83
Lbs. S fed/hour	1,024	1,075
% S lost	14.52	22.39
Smelt Analysis		
NaOH %	----	----
Na_2CO_3 %	80.9	83.6
Na_2S %	15.30	14.35
$Na_2S_2O_3$, etc. as Na_2SO_3 %	0.85	0.60
Na_2SO_3		
Na_2SO_4 %	1.75	.80
Total S %	8.60	7.67
Reduction $\frac{Na_2S}{Na_2S + Na_2SO_4}$	94.3	97

Periods	Furnace No. 1 Steam—Lbs./24 Hours	Furnace No. 2 Steam—Lbs./24 Hours
Feb. 1-7	1,241,000 Regular Saltcake	1,133,000 Regular Saltcake
8-11	1,217,000 Regular Saltcake	1,226,000 Synthetic Saltcake
12-17	1,196,000 Regular Saltcake	1,146,000 Regular Saltcake

This might be reasonably expected as the reactions involving combinations of sulphur and soda ash are generally exothermic. The reduction of some of the products produced (Na_2SO_3, $Na_2S_2O_3$, etc.) require less heat than Na_2SO_4. Consequently, there is less total heat required for reduction.

General thermal conditions in the furnace during the test periods, when synthetic saltcake was fed in the batch method, were very satisfactory. However, during the shovelling in of the batch of saltcake, there was a decrease in steam production rate per hour from 10,000 to 28,000 pounds during the short time the door was opened, caused by a deficiency of primary air, influx of cool air through the back door and the large amount of cake introduced.

3. Reduction during the period, February 1st-February 7th, with regular saltcake, on B & W No. 2, was 90.2%, somewhat lower than usual. During synthetic saltcake test, the reduction increased to 95.1%. We believe it can generally be accepted that reduction is better with synthetic cake.

4. Sulphidity of the liquor fell from 28.1% during February 1st-7th, to 27.2% during February 8th-11th. This is not a big decrease but averaged over the periods referred to it is indicative of what we believe to be a general condition existing when synthetic cake is used—namely, a slight decrease in sulphidity.

5. Soda losses during this test were somewhat lower than on many of our previous tests. An average of tests, 29-32, showed an Na_2O loss of 5.01% of the Na_2O fed to furnace. This is as good, and probably a little better than normal operation on this furnace. We feel from the results of approximately forty tests that soda losses are not any higher with synthetic saltcake than with regular saltcake.

6. Smelt:

Table II shows two groups of analyses. The first group gives values obtained on several tests with regular saltcake, and the second lot adding synthetic saltcake to the black liquor. These tests are directly comparable. They were made under very similar operating conditions and at close intervals. The results show that the smelt produced from synthetic saltcake runs has lower sulphide, sulphate and total sulphur, and approximately the same polysulphide sulphur.

Table III reports data accumulated at a later date during synthetic saltcake addition to the rear of the furnace. We regret that we do not have comparable figures with regular saltcake addition. The figures in Table III should not be compared with group one in Table II. It is evident, however, that the sulphide sulphur and total sulphur are high in the smelt, but you will also note that the saltcake addition was relatively high.

We reported above that the sulphidity of the green liquor dropped slightly during these tests from the weeks operation immediately prior to them. The evidence we believe to be conclusive that much improvement is brought about in sulphur retention, by adding the synthetic saltcake in the rear of the furnace. But, we believe, also, that the loss is a little higher than in using regular saltcake.

In order to follow the course of the sulphur in the smelt, a special test was made, taking samples at fixed intervals after the complete batch of synthetic cake had been

TABLE II

Smelt Analyses

Using Regular Saltcake

Test	Lbs. Na_2O added/hr.	Sulphur added/hr.	Sulphur in saltcake/hr.	Sulphur in B L/hr.	NaOH / NaOH %	Na_2CO_3 / Na_2CO_3 %	Na_2S / Na_2S %	Na_2SO_3 / Na_2SO_3 %	Na_2SO_4 / Na_2SO_4 %	Na_2S_x / S %	Total % S
1	5610	979	423	556	0	74.3	15.9	Trace	5.83	1.08	8.9
2	5530	849	276	573	0	82.1	13.8	"	0.87	1.35	7.2
3	5490	981	457	524	0	80.3	16.7	"	0.98	1.56	8.63
4	5290	986	444	542	0	77.8	15.5	"	2.80	1.83	8.82
9	5050	939	507	432	0	78.6	17.5	"	1.56	1.47	9.00
10	4950	963	455	508	0	76.3	19.5	"	1.40	1.25	9.56
15	5460	1107	507	600	1.70	74.5	13.8	1.20	6.15	1.76	9.10
16	5382	1066	466	600	3.35	77.5	13.4	1.20	1.80	3.02	9.22
17	5279	1024	422	602	0	80.9	15.3	0.85	1.75	1.72	8.60
Ave.	5339	988	440	548		78.0	15.7		2.57	1.67	8.78

Synthetic Saltcake Added in Black Liquor

5	5180	917	473	444	0	82.7	13.8	Trace	0.65	1.08	6.90
6	5040	960	505	455	0	83.2	14.7	"	0.49	1.33	7.47
7	5170	1080	615	465	0	85.0	13.3	"	0.46	1.22	6.77
8	5370	1222	622	600	0	82.8	15.2	"	0.42	1.36	7.68
11	4903	888	426	462	0	84.5	12.1	"	1.45	2.85	8.13
12	5163	994	444	550	0	86.0	13.0	"	.91	2.84	8.38
13	5125	904	435	469	0	86.3	11.5	"	.50	1.77	6.62
14	5120	985	403	582	0	86.2	11.7	"	.67	1.75	6.70
18	5302	1075	432	643	0	83.6	14.3	0.60	0.80	1.47	7.67
Ave.	5152	1003	495	518		84.5	13.3		.705	1.74	7.37

TABLE III

Smelt Analyses

Synthetic Saltcake Added in Rear of Furnaces

Test	Lbs. Na_2O added/hr.	Sulphur added/hr.	Sulphur in saltcake/hr.	Sulphur in B L/hr.	NaOH / NaOH %	Na_2CO_3 / Na_2CO_3 %	Na_2S / Na_2S %	Na_2SO_3 / Na_2SO_3 %	Na_2SO_4 / Na_2SO_4 %	Na_2S_x / S %	Total % S
29	4474	836	414	422	0	77.7	19.3	Trace	1.33	1.46	9.69
30	4281	853	383	470	0	78.0	19.1	"	1.95	0.99	9.27
31	4605	1024	498	526	0	78.0	19.9	"	1.46	0.72	9.22
32	4773	1002	486	516	0	75.0	21.5	"	3.00	0.60	10.13
Ave.	4533	928	445	483		77.2	19.9		1.93	.94	9.58

shovelled into the furnace. Results obtained are reported in Table IV.

From the above data, we believe there is no danger of a period where there will be a radical change in the character of the smelt. There does seem to be a building up of sulphur to a maximum and then a falling off. These variations are no greater than in normal recovery operation.

Summary

● Summarizing the results of between thirty and forty tests, each for minimum 3-hour periods and maximum five-hour periods, we conclude

(a) Synthetic saltcake, when mixed with black liquor and fed to the furnace, causes operating difficulties and chemical losses, making its general substitution for regular saltcake unsatisfactory.

(b) Synthetic saltcake, when fed in a batch system to the recovery unit, improves reduction and steam production.

In spite of slightly higher sulphur losses than when using regular saltcake, it is a satisfactory make-up chemical for use in the sulphate process.

We have no experience feeding the synthetic saltcake continuously in dry form to the furnace.

The author acknowledges with appreciation, the preparation of much of the data contained herein by his colleagues—Bruce Martin, J. J. Goss and J. K. Dyer.

Wheelock Embarks On Eastern Expedition

● Frank Wheelock, chief chemist at the Vernon plant of Fibreboard Products Inc., was last seen Aug. 16 heading toward the Great American Desert in a new automobile, for Chattanooga, Tenn., his home town.

Some fear for his safety was expressed by his associates due to the fact that Mr. Wheelock had not driven an automobile for ten years during which period such complicated devices as four wheel hydraulic brakes, radios, steering wheel gear shifts, streamlining, and the like have been introduced. He was expected to return safely, however, shortly after Labor Day.

TABLE IV

	Total S as S	NaOH as NaOH	Na_2CO_3 as Na_2CO_3	Na_2SO_4 as Na_2SO_4	Na_2S as Na_2S	Na_2SO_3 as S	Na_2S_x as S
Before Saltcake Addition	8.27	0	80.0	1.20	18.10	0.62	.00
2 Mins. after Saltcake Addition	8.17	0	79.1	1.26	17.68	0.25	.40
7 " "	9.73	0	71.0	3.00	21.08	0.25	.16
12 " "	9.85	0	75.2	3.24	20.45	0.39	.33
17 " "	9.35	0	75.0	2.24	20.45	0.25	.20
22 " "	10.75	0	74.3	2.23	21.70	0.26	1.09
27 " "	10.35	0	74.8	2.17	21.82	0.13	1.03

Joint Canadian Research Agreement Extended Five Years

● Announcement is made that a new Agreement between the Dominion Government, McGill University and the Canadian Pulp and Paper Association relating to the Pulp and Paper Research Institute of Canada has been made for a further five years from August 1st, 1940, with a clause making it renewable for further similar periods at the option of the parties concerned.

At a meeting held recently for ratification of this Agreement there were present Dr. C. Camsell, Deputy Minister of Mines and Resources, representing the Dominion Government; Principal Dr. F. Cyril James representing McGill University and Mr. F. G. Robinson, President of the Canadian Pulp and Paper Association.

The tri-partite agreement covers the operation of the Pulp and Paper Research Institute which is located at 3420 University Street, Montreal, and which was established by the Canadian Pulp and Paper Association at a cost of about $325,000.00 in 1927 for the carrying on of research and development work to improve the position of the Canadian pulp and paper industry in relation to world-wide competition. Each of the three parties to the Agreement contributes substantially equally in cash and services to the operation of the Institute. Under the new Agreement the work in the Institute is now co-ordinated into one comprehensive plan of research and development calculated to contribute materially to the benefit of the industry.

The general administration of the Institute is vested in a Joint Administrative Committee comprising representatives of the Government, the University and the industry. The chairman of this Committee is Mr. R. L. Weldon, president of Bathurst Power & Paper Company, Limited.

Dr. O. Maass, head of the Chemistry Department of McGill University, recently made a Fellow of the Royal Society, has been appointed Director of the Research Institute and he will be assisted by Dr. W. B. Campbell as Director of Technical Research.

Dr. H. Hibbert, E. B. Eddy, Professor of Industrial and Cellulose Chemistry at McGill University, will continue to devote his whole time to the work of research for the industry.

The Pulp and Paper Research Institute of Canada is unique in that the Government, McGill University and the industry cooperate on research activities and in the training of chemists and other technical workers for the industry. Thus, Canada's largest manufacturing industry has organized itself to keep abreast of developments, to seek new products, extend its markets, and to keep in the vanguard of world competition.

Ossian Anderson Talks to Shriners

● Ossian Anderson, president of the Puget Sound Pulp & Timber Company and executive vice-president of the St. Regis Kraft Company, spoke before the luncheon meeting of the Nile Temple of the Shrine on September 5th.

Mr. Anderson gave the Shriners his impressions from a recent nine-weeks trip through South America.

INDEX OF ADVERTISERS